

# THE CANDY MANUFACTURER

Published by THE CANDY MANUFACTURER PUBLISHING CO., 30 N. La Salle St., Chicago, Ill. \$3.00 Per Year

Vol. III

MAY, 1923

No. 5



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A. ADAMS LUND

Homogenizing and Its Application to Candy Making

P. M. TRAVIS, B. Sc.

---

The Golden Rule

HERMAN W. HOOPS



*Read wherever good candy is made*



# DELFT

## The World's Best Food Gelatine

HAROLD A. SINCLAIR, 160 Broadway, NEW YORK

*"Price is a relative term — Quality always a concrete fact"*

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STOCKS  
EVERYWHERE

### LEADERSHIP

In every line of business there is always one firm or individual whose determination to make the best that science and craftsmanship can produce invariably results in leadership.

Imitation naturally follows, but it is usually imitation of the semblance, without the inner excellence of the original.

Comparisons are always made with the leader. It becomes the standard by which other products are judged, and the public is not deceived by claims which cannot be proved in performance.

Delft Gelatine in actual use clearly proves its leadership by the excellence of the results you secure in your product.

**Send for samples and prices.**

*We shall also be glad to send you  
on request our illustrated booklet  
"The Story of Delft."*

*Harold A. Sinclair*



# Announcing— A change of title of this publication

AS a result of litigation with the publishers of Candy and Ice Cream, the court has enjoined us from using the word "Candy" in the title of our publication. Therefore, beginning with our next issue, the following title will be used:

# The MANUFACTURING CONFECTIONER

Formerly The CANDY MANUFACTURER

Published by THE MANUFACTURING CONFECTIONER PUBLISHING CO., 30 N. La Salle St., Chicago, Ill.

Vol. III

MAY, 1923

No. 5



We have also changed our corporate name in harmony with our new title of the magazine. We have waived an appeal in this case in view of an agreement wherein the Boyles publications agree not to use the word "Manufacturer" or the word "Foreman" and we agree not to use the word "Factory."

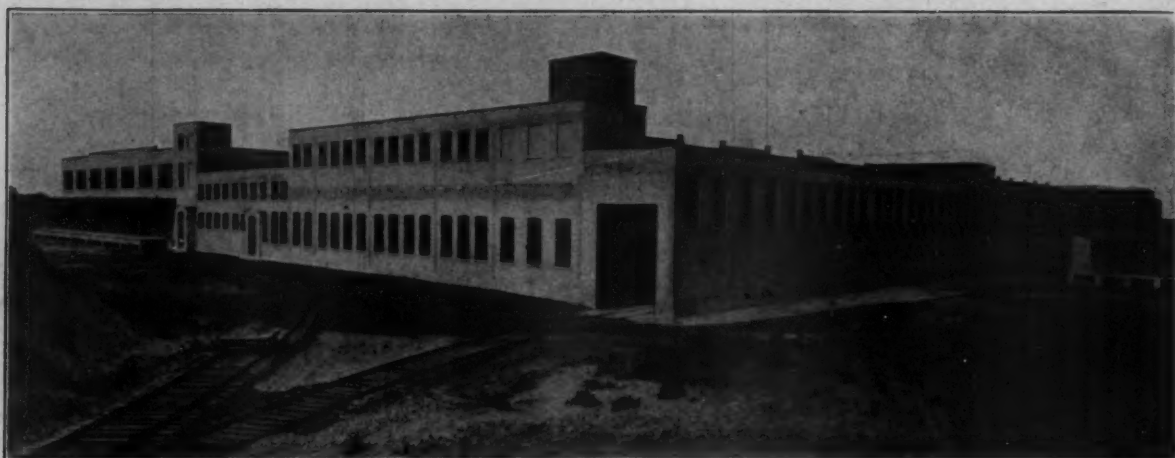
Our new title above describes more accurately the specialized field we are serving—the manufacturing branch of the confectionery industry; furthermore, there will be no occasion for any confusion with other publications in Chicago.

THE CANDY MANUFACTURER was the first manufacturer's publication in this field. It has won the respect and confidence of manufacturing confectioners throughout the entire industry *strictly on its merits*. Its circulation is world-wide—wherever candy is made—and we know we can depend on the continued loyalty and cooperation of our subscribers under the new title. I will appreciate a letter by way of a "vote of confidence."

EARL R. ALLURED, *Publisher.*



# "U. S. GEL"



□ □ □ WORLD'S LARGEST INDIVIDUAL GELATINE FACTORY □ □ □

UNITED  
STATES  
GELATINE  
CO.

MILWAUKEE, WIS.

**U.S.** Gelatine is produced in the World's Largest Gelatine Factory, which means Uniformity, Purity, Strength at the Right Price. Stock used in the manufacture assures a bright, clean, odorless Gelatine.

□ □ □

LET US SEND YOU SAMPLES AND QUOTE ON YOUR REQUIREMENTS

□ □ □







Members: National Confectioners' Association, Midland Club, Chicago Association of Commerce.

# THE CANDY MANUFACTURER

Trade-Mark Registered and Contents Copyrighted, Earl R. Allured

*A Specialized Technical and Commercial Magazine for Confectionery Superintendents, Purchasing Agents and Executives*

PUBLISHED MONTHLY BY

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Schwarz Laboratories

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Chicago Association Con-  
fectionery Superintendents

Vol. III

MAY, 1923

No. 5

## POLICY

THE CANDY MANUFACTURER, being a specialized publication for manufacturing confectioners exclusively, is edited in the interest of the executive, the purchasing, production and sales departments, and provides a medium for the free and frank discussion of manufacturing policies, problems, methods and materials.

The same corresponding policy applies to the advertising pages which are available only to the supply manufacturers for the advertising of products which are used by the manufacturing confectioner—machinery, raw materials and factory supplies, etc.

### *The Candy Manufacturer* believes in

**A Technical Candy School** with resident and extension courses for factory superintendents and journeymen candy makers.

**Rigid Inspection** of candy factories to enforce sanitation and working conditions necessary for the production of a pure food product.

**Pure Food Legislation** which enforces a quality standard for confectionery.

**Uniform Method** of cost finding and accounting.

**An Annual Exposition of Confectioners' Supplies** and equipment under direction of (not merely endorsed by) The National Confectioners' Association.

Entered as Second-Class Matter October 24, 1922, at the Postoffice at Chicago, Illinois, under the Act of March 3, 1879

Issue of May, 1923

(5)

*The Candy Manufacturer*



**Ucopco**  
**Pure Food**  
**Gelatine**

**"Nothing More Tempting"**  
—than those delicious marshmallows made with *Ucopco* Gelatine. They are so meaty and tender.

As it has actually done for many others, *Ucopco* will help you to firmly establish your brand by aiding you to produce a better marshmallow that assures a minimum of sales resistance. It quickly becomes the popular brand in any community.

Any of the offices listed below can show you why it will be advantageous for you to use *Ucopco*.

**United Chemical & Organic Products Company**  
Home Offices: 4200 S. Marshfield Avenue, Chicago

Branches:  
New York City    Milwaukee    New Orleans    Detroit    San Francisco

**"UCOPCO Comes Sealed in Red Drums"**

# Ucopco Pure Food Gelatine

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## The Candy Manufacturer's Approved Advertising of Confectioners' Machinery and Supplies and Miscellaneous Advertising Directed to Manufacturing Confectioners

**POLICY:** THE CANDY MANUFACTURER is essentially a manufacturers' publication and therefore is a logical advertising medium only for confectioners' supplies and equipment. The advertising pages of THE CANDY MANUFACTURER are open only for messages regarding reputable products or propositions of which the manufacturers of confectionery and chocolate are logical buyers.

This policy **EXCLUDES** advertising directed to the distributors of confectionery, the soda fountain and ice cream trade. The advertisements in THE CANDY MANUFACTURER are presented herewith with our recommendation. The machinery equipment and supplies advertised in this magazine, to the best of our knowledge, possess merit worthy of your careful consideration.

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# Essential Oils, Fruit Flavor Bases, Cumarin and Vanillin

Seasonable Offerings:

**Oil Peppermint, Guaranteed Absolutely Pure and of Finest Flavor**

**Oil Lemon and Sweet Orange, F. B., Handpressed  
of Unexcelled Quality**

## Hard Candy Flavors

APPLE  
BANANA  
BLACKBERRY  
CHERRY (with Pit Flavor)  
CHERRY (without Pit Flavor)  
CHERRY, Wild  
CURRANT, Black

CURRANT, Red  
GOOSEBERRY  
GRAPE  
HONEY  
LOGANBERRY  
PEACH  
PEAR

PINEAPPLE  
RASPBERRY  
ROSE  
STRAWBERRY  
STRAWBERRY, Preserved  
VIOLET

THE reception accorded to this new group, which we placed on the market only a short time ago, has been gratifying and supports all we claim for them. These flavors are of the highest concentration, have the delicious aroma of the fruit itself and have been manufactured with a special view to permanence and TO WITHSTAND CONSIDERABLE HEAT. In addition to the large

amount of natural extractive matter from the fruits present, the Flavors contain sufficient Ethers, Esters, Vegetable Tinctures, etc., to provide the necessary strength and impart the special characteristics necessary and claimed for this group.

For all other kinds of confectionery, particularly cream work, the following groups have been successfully employed:

## TRUE FRUIT AROMA ESSENCES

Extra Concentrated

which represent nothing but the extractive matter of SOUND, RIPE FRUIT; and our

## FRITZBRO-AROMES

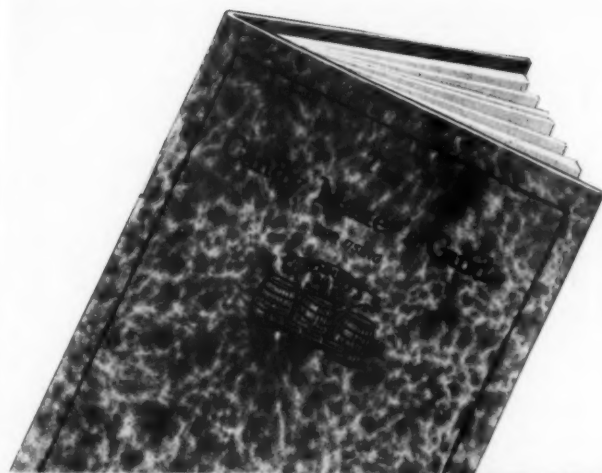
which are the IDEAL FLAVORS OF HIGHEST CONCENTRATION, based on Fruit Extractions and fortified with other harmless ingredients to accentuate the SPECIAL CHARACTERISTICS of the respective fruit.

With these lines, you can solve ANY PROBLEM of flavoring candies, of whatever kind they may be. Samples and further details will be cheerfully furnished upon application.

# Fritzsche Brothers, Inc., New York

Chicago Branch: 33-35 West Kinzie Street





*This booklet describing in detail our entire line and many tested formulas will be sent free on request.*

*Let us send you your copy.*

**SENNEFF-HERR Candy Maker's Specialties are of "Sterling" Quality**

## A NOUGAT THAT WHIPPED COMPETITION

**B**ECAUSE—the quality was there and the price was lower—it got the business and held its place and repeated at a profit—all because it was made with Senneff's Nougat Whip, which goes farther, makes fluffier candy and holds moisture better than anything on the market that is being used for the same purpose. Try a sample shipment.



### Senneff-Herr's "Big 3."—Products you should know about

#### Egg O Creme

*"The Best for Cream Centers"*

Makes a soft, snowy-white, velvety and creamy starch mold center that ripens ready for the market in a very few days.

Also a center that is easy to dip with a small percentage of coating, on account of a smooth, firm crust and the absence of starch.

#### X-L Cream Caramel Paste

We guarantee X-L CREAM CARAMEL PASTE not to turn rancid, sour

nor curdle. It makes a caramel as smooth as one made from pure sweet cream at LESS COST and has a richness of flavor that is true to its name. It EXCELS.

#### Nougat Whip

is monarch of them all in quality, lightness, smoothness and flavor. Our NOUGAT WHIP is made from pure Hen Egg Albumen. IT IS ABSOLUTELY FREE FROM SUBSTITUTES.

NOUGAT WHIP belongs to Senneff's "Big 3" family.

*Other competitive products to meet price competition*

*These Sterling Brand Specialties are the foundation materials back of many successful confections put out by the foremost manufacturing confectioners in this country. Perhaps we can help you too. May we suggest a solution of your problem?*

### SENNEFF-HERR COMPANY, Sterling, Ill.

You may send a copy of your **Candy Maker's Guide**—without obligation.

Name.....

Per.....

Address.....



# Flavor Value

---

Value is not composed of a single element; mathematically speaking, it is a function of both price and quality; it can only be computed on the basis of price paid and quality received.

The wise buyer of flavoring ingredients confines his purchases rigidly to sources of supply which guarantee him the maximum return in value, the most economical co-ordination of price and quality.

Flavoring materials recommended by the House of Ungerer meet this requirement to the complete satisfaction of the most exacting purchaser.

We urge exhaustive test of our

## OZONE-VANILLIN

OIL PEPPERMINT

OIL WINTERGREEN

OIL ORANGE ITALIAN

OIL ORANGE WEST INDIAN

OIL LEMON SUPERFINE

SIMILE FRUIT ESSENCES

NATURAL FRUIT FLAVORS

CONFECTIONERS' FLORAL FLAVORS

---

*"Our Quality Is Always Higher Than Our Price"*

---

## UNGERER & CO., New York

124 West Nineteenth Street

CHICAGO  
189 No. Clark Street

PARIS, FRANCE  
11 Rue Vezelay



This price list tabulates our entire line of Essential Oils, Vanillas, Emulsions, Natural and Artificial Fruit Flavors, Hygieno and Certified Food Colors, etc., *with net prices.*

Be sure your name is on our regular mailing list

Try This Ideal Flavor for Cream Centers:—

**Confectioners'  
Orange Paste**

Made without cooking from the outer portions of the peel of fresh, ripe oranges—not a marmalade.

Ideal for flavoring cream centers and other fine confectionery; imparts a fine, fresh, real fruity flavor.

Use 10 pounds to 100 pounds of Creams.

Price 30 cents per pound in cases containing six 5-lb. tins.

**Remember**

We publish what we believe to be the most authoritative treatise on Candy Making which is available on the subject.

**Skuse's Complete Confectioner**

A Practical Guide to All Branches of Candy Making

**Price \$6.00 Net**

**W. J. BUSH & CO.,** 370 Seventh Avenue  
New York City

Please put our name on your regular mailing list to receive your price list on entire line of "BUSH" Essential Oils, Flavors and Food Colors. You may also send sample

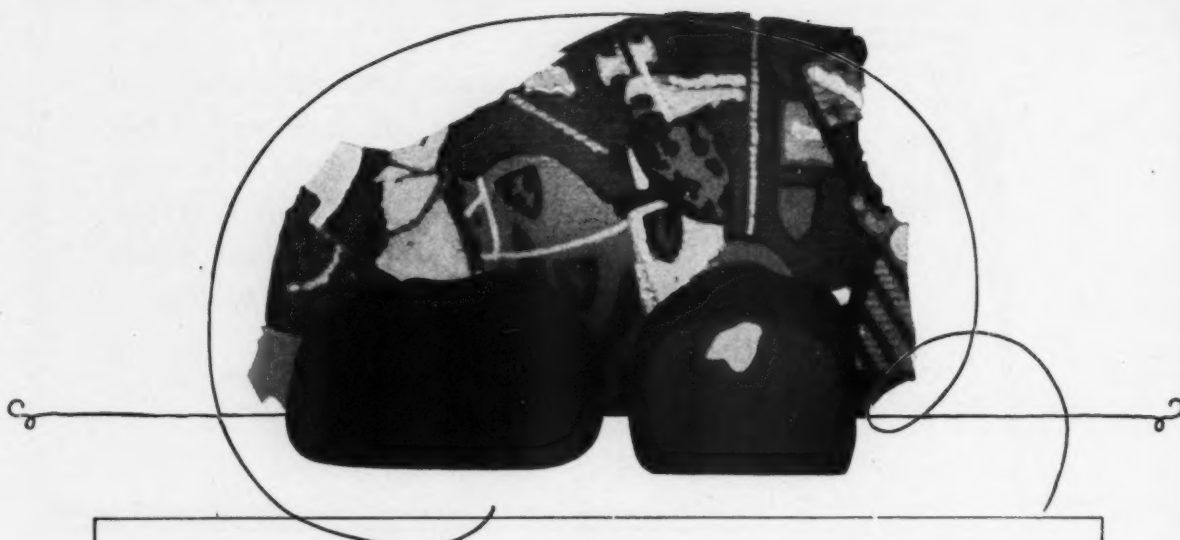
of .....

Name .....

Per .....

Address .....





## A Grief-Proof Cast Caramel!

Now—for the first time—a richer cast caramel is assured.

With the discovery of Superkreme, new selling possibilities for cast caramels unfold themselves. For Superkreme offers you—

Fresh Cream and milk flavor  
Uniformity  
More Milk Solids  
Tender, Yet chewy Texture  
And they cast clean, too!

Test the following formula. It will take your cast caramels out of the "scrap-eater" class, and put them on an equal with your cream centers.

Exhibit the results to your jobbers and win further prestige for your candies.

### CAST CARAMEL FORMULA (multi-tested to insure accuracy)

Cook 20 lbs. sugar, 20 lbs. corn syrup, salt to suit, 2 lbs. hard fat, 1½ gals. water, and 40 lbs. Superkreme to a medium ball. Flavor vanilla and cast at once.

*Superkreme is made only by*

**White-Stokes Co., Inc.**

3615-23 Jasper Place  
CHICAGO

253 36th Street  
BROOKLYN

*Meet us at the Confectionary Exhibit,  
Atlantic City, May 23 to 25  
Booths 45 and 46*

# White Stokes

Another evidence of our constant efforts to help the cause of good candy and the profits of the candy trade.

# SUPERKREME

2

1923

1923





## Nulomoline for Better Candy



### FUDGE

**B**Y the use of NULOMOLINE, fudge can be held in good condition. It prevents *graining* and drying out. NULOMOLINE can be combined with sugar and corn syrup, and the method of working is very simple.

*Nulomoline makes  
Candies that keep.*  
P.S.

The Nulomoline Company  
New York :: Chicago :: Boston

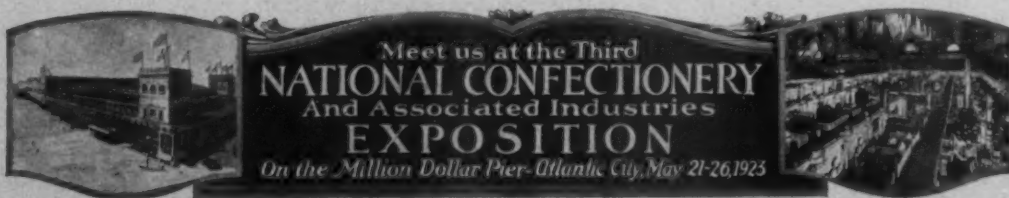
*This advertisement is  
one of a series. Next  
month—Jellies*

## FUDGE

FUDGE may seem a simple piece of candy to make, for almost any schoolgirl can make it. But when it comes to making a fudge that may be shipped into all climates, then its making becomes a man-size job.

Our Service Department has made a wide variety of fudge under many different conditions. An all-sugar fudge, which will keep, is considered by many candy makers an impossibility. The fact is that all-sugar fudge is just as easy to make as its cheaper brother, which depends largely upon corn syrup to keep it from graining and drying. Fudge is made either on open fire, or with steam. It is both a large and small factory product. It may be successfully poured upon boards, coolers or marbles, but the same formula cannot be used in all cases. You may have a formula for fudge that never gave any trouble from spotting, and a change in factory conditions will bring this trouble. Fudge troubles are common enough to have been experienced by nearly all candy makers, and our men are fudge doctors. Let us give your Fudge Department our assistance.

*The coupon is for your convenience.*



*All formulas and information sent without obligation*

M-5

Service Dept. THE NULOMOLINE CO., 109-111 Wall Street, New York, N. Y.

Please send me your formulas for  
(Check those desired)

Nougat	<input type="checkbox"/>	Cast Creams	<input type="checkbox"/>	Name _____
Caramels	<input type="checkbox"/>	Hand Rolled Creams	<input type="checkbox"/>	Position _____
Fudge	<input type="checkbox"/>	Hard Candy	<input type="checkbox"/>	Firm _____
Marshmallow	<input type="checkbox"/>	Coconut Work	<input type="checkbox"/>	Street and No. _____
Jellies	<input type="checkbox"/>	Bon-Bons	<input type="checkbox"/>	City and State _____









Franklin said:—

"We may give advice,  
but we cannot give con-  
duct."

We have spent much  
time and effort through  
our Research Depart-  
ment finding out just  
what kind of sugar to use  
to produce the different  
kinds of candy.

We can advise you to  
write us for this informa-  
tion, but you cannot get  
the results unless you—  
put it to work.

**The  
Franklin Sugar  
Refining Company**

PHILADELPHIA, PA.

"A Franklin Cane Sugar for every use"



*Run Your Eye  
Down This*  
**IDEAL  
COATING**  
*Line-Up*

You may find some old friends here!  
Some of these numbers have been  
used for years by leading confection-  
ers of this country.

If you happen to be unacquainted  
with Ideal standards, select one of  
these coatings for a try-out.

Dark Sweet  
**IDEAL HUMMER**

Medium Sweet  
**IDEAL SUNSET**

Light Sweet  
**IDEAL GOLDEN STATE**

Bitter Sweet  
**IDEAL PURITAN**

Milk  
**IDEAL HIGH COURT**

Vanilla  
**IDEAL CAPITAL**

Fancy Special  
**IDEAL BERNESE**

and in Liquors  
**IDEAL VAN ZANT**

In every number, at moderate cost  
*uniformity* is combined with *qual-  
ity*. They're all "True to name—  
IDEAL."

*Write for samples*

**IDEAL COCOA & CHOCOLATE CO.**  
39 PARK PLACE, NEW YORK  
BOSTON — CHICAGO  
MILLS — LITITZ, PA.



**"--and they keep  
the color of your  
Candy Uniform!"**



EVERY shade and blend in the "National" Line of Food Colors is carefully prepared to maintain uniformity in the color of your candy.

Your customers know your candy by its color as well as its taste. The color must be uniform. "National" Certified Food Colors will keep it uniform.

Use "National" Food Colors. They are certified in accordance with government regulations. Let us send you the "National" Descriptive Folder.

*Certified Food Color Division*

**National Aniline &  
Chemical Co., Inc.**  
40 Rector St. New York, N. Y.

Boston Philadelphia  
Providence Charlotte  
Hartford Chicago  
San Francisco  
Toronto Montreal

**"NATIONAL"  
CERTIFIED  
FOOD COLORS**



**A Chocolate Factory  
devoted to the  
exclusive manufacture of  
High Grade Chocolate  
Coatings and Liquors**

*Samples and Prices  
sent on request*

**FORTUNE PRODUCTS CO.**  
416-22 South Desplaines Street  
CHICAGO

# Best of All ATLANTIC —a super-clarified— GELATINE



**"Purest and Best  
It Stands the Test"**

Atlantic costs more to make—the clarifying process takes longer; but it is so pure and so clear that a single glance of Atlantic in the solution will show why it is more economical and actually costs less than corresponding grades of ordinary gelatine. Atlantic passes the pure food requirements of any state in the Union.

## Test Atlantic Risk-Free

Send today for a barrel of Atlantic. Use five, ten or even fifteen pounds. If, after a fair test, you decide that Atlantic is not your gelatine, rehead the barrel, return the unused gelatine, and we'll pay the freight both ways. Begin today to place your reliance for uniform quality gelatine on Atlantic. It wins every time.

**ATLANTIC GELATINE COMPANY**  
Woburn, Massachusetts  
**WRITE HOME OFFICE**

Or one of the following branches, if nearer you

—BRANCHES—  
NEW YORK CITY CHICAGO  
Room 1081 Woolworth Bldg. Suite 516-118 N. La Salle St.

# What you ought to know about Desiccated Coconut

**F**RESHLY made and freshly prepared desiccated coconut is a delicious and valuable food-stuff. It contains small quantities of protein, but it is rich in fat and carbohydrates, the energy-producing foods.

By ROYAL S. COPELAND, M. D.

Commissioner of Health, New York City.

Regulator-Elect from the State of New York.

Desiccated coconut is simply the dried white meat of the nut which has been cut into chips, threads or ribbons. In the process of drying practically all the moisture is removed, so that the keeping qualities are good. To make it doubly safe it is packed in boxes lined with tea-lead and paper.

The trade gives the different sizes and qualities of the dried coconut special names—"fine macaroon," "shred," medium, improved and coarse; "chip sliced," "flat strip" and "long thread." Then there are classes known as "granulated" and "fancies."

Desiccated coconut is an important ingredient of various sweets in common use. Without it the baker and confectioner would be lost. The granulated forms are purchased by the bakers for use in cake and crackers, while the fancy forms go into candy.

It would seem to be the natural thing to preserve and dry this product in the region where the coconuts are grown. As a matter of fact, however, a great deal is dried in the United States. For this purpose large numbers of the nuts are imported, above ninety millions yearly.

In addition to the quantities of desiccated coconut made here, we import annually about thirty million pounds from Ceylon. That country has satisfied most of our demands.

Freshly-made and well-prepared desiccated coconut is a delicious and valuable foodstuff. It contains

small quantities of protein, but it is rich in fat and carbohydrates, the energy-producing foods. It has high caloric value.

Like other nuts, the coconut contains a rather high percentage of potassium. On this account, too, it is an important food.

It is not enough to know that a food is good for you. Unless it "looks good," to use a common phrase, it is hard to eat it. The superior cook is the one who knows how to prepare and embellish the dish so that by appealing to the eye it excites a longing to eat it. She combs the market and rocks her brain to get just the right artistic effect. In this respect, the good home cook often rivals the famous chefs of the great hotels and manufacturing concerns, whose products are a joy to every holder.

Desiccated coconut lends itself to the beautification of cakes, desserts and candies. Therefore, it stirs the jaded appetite at the same time it is giving desirable nourishment to the body. Let us eat more coconuts.

Copyright, 1923, by Newspaper Feature Service, Inc.

**Consumers of  
Desiccated Coconut  
Consult Headquarters**

**Stein, Hall & Co., Inc.**  
61 Broadway New York  
**Stein-Hall Mfg. Co.**  
2841 So. Ashland Ave. Chicago

# Something Better in Colors and Flavors



**A**TLAS Brand" Colors and Flavors offer to the Confectioner the strongest and most brilliant colors and the most delicate and delightful flavors. In fact their unusually high quality has made them the standard for many of the country's leading candy manufacturers.

## "Atlas Brand" Colors All Shades

Certified Combination Colors  
Certified Primary Colors  
Certified Paste Colors  
Vegetable Dry Colors  
Vegetable Paste Colors  
Atlas Carmine No. 40

Send in this coupon, or write us about your color and flavor problems.

**H. Kohnstamm & Co.,**  
11 East Illinois St., Chicago

You may send us your price list and special information on following colors:

Also the following flavors:

Name \_\_\_\_\_  
Per \_\_\_\_\_  
Address \_\_\_\_\_

## "Atlas Brand" Flavors and Extracts

Genuine True Fruit Flavors  
Imitation Fruit Flavors  
Conc. Imitation Fruit Flavors  
Pure Vanilla Extracts  
Imitation Vanilla Flavors  
Maple Flavors

*A trial quantity of "Atlas Brand" Colors or Flavors will be gladly sent on request with the understanding that they satisfy you, otherwise they may be returned at our expense.*

**H. KOHNSTAMM & CO., INC.**

Established 1881

NEW YORK  
83-93 Park Place

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## EDITORIAL

### George A. McLearn

It is with much pleasure that we announce the affiliation of George A. McLearn with this magazine. Mr. McLearn has been associated with the trade press of the confectionery industry for nearly twenty years and needs no introduction to our readers, especially in the eastern territory; we feel our organization is materially strengthened by Mr. McLearn's connection. He was a co-worker with the editor of *THE CANDY MANUFACTURER* for three years and we are happy to again pull together in the same harness.

### "Candy for Dessert"

Last year, our readers will remember, this magazine made some special effort to present for the consideration of the hotel industry the merits of serving confectionery for the dessert part of a meal. It is especially interesting in this connection to note how the Girl Scouts, Inc., have recognized the dietary value of candy and its place as a dessert.

In order to win the "Health Winner Merit Badge" a Girl Scout must conform to thirteen rules of health. One of the rules in the health record of points is, "I ate no sweets, candy, cake, sweet drinks or ice cream except as dessert." No matter how well-balanced a meal is planned, it does not contain enough sweets for the growing child. The organization of Girl Scouts recognizes this and provides for the child's natural craving by setting aside in their camps the half hour right after the evening meal for the eating of candy or other sweets.

It seems logical that a sales campaign developed around this idea would prove successful. Here is an inspiration for the advertising copy writer for a "Family Candy Package." When everybody appreciates the food value of candy and its proper place in the dietary as much as the national organization of Girl Scouts, then the family or grocery package of candy will be just as staple an item of household supplies as pastry or any standard dessert. But it must be real candy—not "near candy," as Mr. Strayer, of Gillen and Boney, speaks about on page 57 of this issue.

It is a lamentable fact that a small minority of our industry is putting on the market a product which is so void of the essentials of what could reasonably be called candy, according to the most liberally accepted standards, that such goods are actually undermining the public taste and desire for confectionery and thus diverting the dollars of the consuming

public to competing industries. Confectionery cannot compete with other food industries for a place on the dessert section of the menu of the nation with anything short of quality which is unimpeachable, and that quality must be the average of the industry.

### Too Much Credit

**I**N THE opinion of many financiers the country is now approaching a condition in which further extensions of credit on any considerable scale may not result in corresponding gain in economic production, and for this reason an increasing degree of caution in the matter of such extensions has become necessary.

Most basic industries are now operating very nearly at capacity. If plants are idle it is because the needed labor is not available. Will further credit expansion, then, lead to more production or merely to higher wages and higher prices until eventually another radical readjustment is necessary? That is a hard nut for the business community to crack. It is always difficult to know definitely when the point of transition from healthy growth to feverish speculation has been reached.

A decision is all the more difficult because this point is not reached by all industries at the same time. It appears to have developed recently in the sugar market, while the industries of the country at large are in a healthy state. Statistical data of business, more abundant and more accurate than those now available, are needed if we are to avoid the extremes of boom and depression from which the country has suffered periodically in the past.

### Activity in the Basic Industries

**A**CTIVITY in the building trades continued to feature April business as it did in March, according to reports received by the Department of Commerce. Building contracts awarded in April on the basis of three weeks' reports were slightly higher than a year ago, while lumber production continued to increase. Receipts of wheat and livestock have continued in good value. Cotton receipts have made a seasonal decline. Wool receipts at Boston were very heavy, and for the week of April 14 were the largest recorded in more than a year.

Exports of wheat, wheat flour and corn declined during the early part of April, but wheat and corn exports during the last week in April were the highest since early in March. The rise in wholesale prices was halted in April, and slight declines have occurred in copper, chemicals and cotton, but the rise in iron and steel prices continued. The weekly food index has made rapid declines in the past two weeks, and is now the lowest since last October. Loadings of freight cars have increased, and the net surplus of freight cars has been reduced to 34,343 at the middle of April as against 66,041 at the end of February. Business failures in April were about the same as in March. Sterling exchange declined at the end of April to the lowest mark of the year.

# "The Golden Rule"

## A Constructive Discussion of Existing Competitive Conditions

by **Herman W. Hoops**

Vice-President, Hawley & Hoops of New York City

**Mr. Hoops says:** *We have reached a stage in the industry where there is too much unfair and demoralizing competition and not enough co-operation. Can the manufacturers be aroused before it is too late? Coercive remedies are not available. Concerted action in fixing prices is illegal. The solution of the problem, therefore, lies with the individual manufacturers. If they can be made to see the light of reason, and to apply it in their own business, much can be accomplished towards restoring a healthy and fair competition..... Until the time arrives when the manufacturers will awaken to a realization that the principal function of business is the making of a fair margin of profit to the owner, and that this result cannot be accomplished until prices are governed by the cost of manufacture, there is little hope of any substantial improvement in the industry.*

Mr. Hoops gets down to brass tacks in this discussion of competitive conditions existing in our industry today. An analysis is made of the factors entering into the accurate determination of costs and the whole article is a constructive and earnest appeal for more sober thought on the serious situation before us all at this time.

This article is printed in booklet form, pocket size, and extra copies will be very cheerfully sent to anyone free of cost upon request. Write direct to Mr. H. W. Hoops, 231 Mulberry St., New York City.  
—Editor.

**A**S food is essential to a continued existence of life, so is a fair return on capital investment essential to a continued existence of any business.

That this principle has been ignored by many manufacturers of confectionery is made evident from the numerous failures during the past few years. If these failures affected only the manufacturers who were the victims thereof, one might allow the matter to rest with the mere statement that they, and their indulgent creditors, alone are paying the penalty for a lack of business acumen, foresight or judgment. Unfortunately, however, the damage does not stop there. Other manufacturers, in their eagerness to obtain business, take as their guide the methods pursued by these unfortunate manufacturers and blindly follow the trail blazed by them. Conservatism in business is scattered to the four winds, and the slogan "Get business at any price" adopted.

Sooner or later, however, these manufacturers also find their lot cast with their unfortunate brethren. But before they reach the bankruptcy goal, they have succeeded in arousing

apprehension on the part of still other manufacturers, who ordinarily would be disposed to follow conservative and sane business methods, that their business will be undermined and their trade lost unless they likewise follow the business methods of their less conservative and

unbusinesslike competitors. As one by one they fall victims to the bankruptcy courts, the others, unmindful of the warning, nevertheless continue their same methods until such time as they too find themselves enmeshed. In the meantime, however, others have joined their ranks. So on and on they go as if forming an endless procession.

How long are these conditions to continue before the manufacturers awaken to a full realization of an impending doom? How long are some manufacturers going to continue to delude themselves by seeking to take business from a competitor even though it necessitates selling their products at a loss? How

long will some manufacturers continue to labor under the delusion that it is volume of output which alone affords a criterion of a prosperous and successful business? How long will it be before the manufacturers awaken to a realiza-



tion of the golden rule "To live and let live"?

Evidently imbued with the idea that the candy business offers a medium for quick and large profits, many newcomers have entered the industry since the advent of prohibition. They, however, soon awaken to a realization that the conditions in the business are somewhat different from what they had anticipated, with the result that, in their struggle to survive, they resort to a form of competition demoralizing to the industry as a whole. To a large extent these newcomers are responsible for existing conditions.

We have reached a stage in the industry where there is too much unfair and demoralizing competition and not enough co-operation. Can the manufacturers be aroused before it is too late? Coercive remedies are not available. Concerted action in fixing prices is illegal. The solution of the problem, therefore, lies with the individual manufacturers. If they can be made to see the light of reason, and to apply it in their own business, much can be accomplished towards restoring a healthy and fair competition.

#### **In Wake of Your Competitors**

There are too many manufacturers who are more alert and anxious in their endeavors to discover what their competitors are doing than they are about discovering the actual conditions prevailing in their own business. The sales methods pursued by their competitors, and the prices at which they sell their commodities, become their guiding principles. They reason that if their competitors can pursue certain sales methods and sell at a given price, they likewise can do so. They ignore a possible dissimilarity in their competitor's plant construction and equipment, the volume of output, method of manufacture, and other factors entering into the question of the cost of production.

While, no doubt, it is essential that a manufacturer should keep himself informed in a general way as to the doings of his competitors, yet this information should be considered of but secondary and not as of all-controlling importance. No manufacturer should be governed entirely by his competitor's prices or methods of doing business. *If a competitor insists upon selling his products at a loss, let him do so.* If he persists in this practice, it is merely a matter of time before failure overtakes him.

If the various manufacturers would muster sufficient courage to conduct their own business according to sane and conservative lines and not allow their business methods to be moulded and their prices fixed by competitors, great strides would be made towards a betterment of conditions in the industry as a whole.

That the inexorable law of supply and demand applies to the confectionery industry, as it does to all other industries, is beyond contradiction. Under this law overproduction usually finds reflection in a lowering of prices. Are the prevailing low prices attributable entirely to this economic principle? I, for one, do not be-

lieve so. During the holiday period few, if any, of the manufacturers complained of an inability to obtain orders. Their complaint rather was of an inability to fill orders on hand. But even during this period, when the demand kept pace with the supply, prices were too low to reflect even a fair margin of profit.

#### **Advancing Prices**

Many manufacturers are quick to lower prices, even to a point where the sale shows a loss, when they feel it will stimulate the obtaining of orders. Yet these same manufacturers hesitate to advance their price when a change in conditions occurs and the reasons prompting the making of the lower price no longer exist. They are reluctant to make an advance because of a fear that it might result in an inability to make further sales to those who have enjoyed the lower price. As much as they would like to advance their price, they have not the courage to do so. Each waits for the other to take the initiative and in the meantime continues to make inroads on his capital or surplus account.

*Every manufacturer should have sufficient courage to advance his price when the then current price does not reflect a fair margin of profit.* No manufacturer can get all of the business in every line, or even in any one line, notwithstanding his selling price may be lower than that of other manufacturers.

The instances where a manufacturer, under ordinary business conditions, intentionally disposed of his products at a loss are perhaps comparatively few in number. The great majority undoubtedly labor under the impression that the sales price realized by them reflects a fair margin of profit. How often have we heard manufacturers say that their selling price reflects a fair return of profit, and yet, within a comparatively short period of time thereafter, we find these very manufacturers financially embarrassed. A mere belief, no matter how honest it may be, that a profit is being realized, does not turn a loss into a profit.

Before any manufacturer can know that his sale price includes a fair margin of profit, it is essential that he have reliable and accurate information as to all of the proper items which go to make up the cost of production. Only with such information before him can the correct selling price be intelligently determined.

#### **Three Classes of Manufacturers**

Generally speaking, the manufacturers may be classified into three groups:

(a) Manufacturers who have no cost system. Those coming within this group either guess at their costs, or more often are governed in fixing their sale price solely by what they *understand* the sale price of their competitors to be. They are very apt to even shade a competitor's price in order to obtain business. They take no cognizance of dissimilarity in plant structure, methods of manufacture, volume of production, or the other factors involved in the manufacture of the product.



(b) Manufacturers who have an incomplete cost system. Under such a cost system many items which should be included are not taken into consideration. The result is that the cost figure arrived at is not even approximately accurate. Manufacturers operating a system of this kind usually find in making up their profit and loss statements that their business has been conducted at a loss.

(c) Manufacturers who have a proper cost system. Only with such a cost system is it possible to arrive, with any degree of accuracy, at the actual cost of the product.

#### Factors Affecting Production Costs

Every manufacturer should have a cost system which will eliminate guess work and tell him exactly what his cost will be for any volume of production. His system necessarily must include *all* of the proper items which go to make up the cost. Not only must the item of sugar be considered, but also every other item in the formula under which the goods are made. The figure so arrived at, however, does not reflect the cost. There are many other items equally important which also must be considered. Among these mention may be made of the following:

1. A proper proportion of the overhead expense of the plant. Overhead expense does not merely mean the amount paid for taxes, interest, insurance, rent, etc., but includes the items of labor and services coming within the so-called *non-productive class*. This expense cannot be lumped for the business as a whole and spread over the output on any basis. The overhead for each department must be gathered and charged only to those items of the product manufactured in that department. Each unit of product must be made to bear only its normal share of overhead.

2. The cost of the productive labor required to manufacture the particular unit or batch, the cost of which is under consideration.

3. The cost of the boxes, pails, cartons, or other packages in which the finished product is packed. There should also be included all other items of material such as paper, tin-foil, cups, wax paper, cord, etc., which go into or form a part of the package.

4. The labor cost of packing.

5. The cost of packing cases, and of the labor involved in connection with the packing therein of the goods.

6. Cartage, expressage, and freight where allowed.

7. The 3 per cent Excise Tax. *This tax is payable monthly. You pay it on your selling price irrespective of whether that price reflects a profit or a loss.*

8. Depreciation in the value of fixtures, machinery, and property account.

9. Losses arising from uncollectable accounts.

10. Selling expenses, including cost of advertising, salesmen's commissions, etc.

11. Cash discounts.

12. Compensation insurance, which by law a manufacturer is now compelled to carry in many of the states.

13. Premiums paid on group life insurance, where such insurance is carried for the benefit of employees.

14. The amount, if any, paid to old employees in the form of pensions.

15. Federal capital stock tax in the case of corporations.

To the cost thus ascertained, a fair margin of profit is to be added. In determining the item of profit, the fact must not be lost sight of that the Federal and many of the state governments now exact payment of an income tax. The amount of tax thus exacted should also be taken into consideration in order to arrive at a figure which will leave a fair margin of profit to the manufacturer, after due allowance has been made for the payment of such tax.

As cost systems are worked out on a fixed normal capacity production basis of the plant operating under normal business conditions, any disturbance in normal business conditions of necessity reflects in the manufacturer's cost. He must, therefore, ever be alert in detecting causes which tend to affect his fixed normal production and make adjustment in his costs accordingly.

#### When Raw Materials Fluctuate

Much has been written about cost systems during the past few years. While theoretically a proper cost system, as applied to the confectionery industry, can no doubt be formulated, yet from the viewpoint of practical operation, the cost, as reflected by the cost system, does not at all times represent the then cost of the product. This is not due to the system, but rather to the constant fluctuation in the price of the materials and other items involved in the ascertaining of costs, and a failure on the part of the manufacturers to recast their costs in view of such fluctuation.

It is the practice on the part of the great majority, if not all, of the manufacturers to recast their cost prices only when there is a change in the price of sugar. If the price of sugar advances, and they have a quantity of sugar on hand purchased at a lower price, so long as this supply of sugar lasts, they will base their sales price thereon. On the other hand, where there is a decline in the price of sugar, they immediately reduce their prices and this notwithstanding that the sugar forming a component part of the product sold represents sugar on hand and for which the higher price was paid. The inconsistency of this method is quite apparent and does not reflect the exercise of a good business judgment. It results in the customer obtaining the advantage irrespective of whether the price of sugar is increased or declines.

It is reasonable that prices be maintained until all of the high priced sugar is used up. It



is likewise reasonable to advance prices at once when the price of sugar and other raw materials advances. It is only in this way that a loss on stock on hand caused by reduction in the cost price of sugar or other raw materials can be avoided.

It often happens that notwithstanding an advance in the price of sugar, the manufacturer for many months does not change his price to the extent of the advance in sugar. He is at a decided disadvantage, and loses a profit which he ought to have made. A good illustration of this was afforded only recently. Sugar advanced from 5c to 8c and 9c within a very short period, during all of which time the manufacturers, who had a supply of sugar on hand, made no advance in their prices. When their supply was used up, they made an advance but not sufficient in amount, for at this particular time, especially as to staple goods, profits are very small.

It is a well established economic principle that overhead expense is always in inverse ratio to the volume of business. The minimum of overhead is reached when a plant runs at full capacity. As soon as the plant fails to be run at full capacity, it results in the relative overhead expense being increased. Notwithstanding this fact, we find that in dull times manufacturers will reduce prices when in fact, because of the relative increase in their overhead expense, prices ought to be increased. This condition of affairs while deplorable, is one that has prevailed, not alone in the confectionery, but as well in other industries, for many years, and no doubt will continue until such times as all manufacturers will give recognition to and apply the economic principle above referred to.

The desirability of all manufacturers installing a proper cost system cannot be too strongly emphasized. With such a system each manufacturer at least would know the approximate cost of his goods. With this knowledge, he would be in a position to more nearly fix a proper selling price, thus assuring a continuance of his business. So-called cut-throat competition to a large extent would be eliminated and the slogan "Get business at any price" would give way to the rule of "Live and let live."

Until the time arrives when the manufacturers will awaken to a realization that the principal function of business is the making of a fair margin of profit to the owner, and that this result cannot be accomplished until prices are governed by the cost of manufacture, there is little hope of any substantial improvement in the industry.

"To live and let live" involves the application of the golden rule "Do unto others as you would have them do unto you." If all manufacturers were to adopt this rule in their business and at all times honestly live up to the same, it would spell co-operation in capital letters and prove of inestimable benefit, not alone

to the industry as a whole, but as well to the individual members thereof.

## Business Situation at Home

*Summarized by Department of Commerce*

THE uniformly high productive activity of February is further emphasized by late reports to the Department of Commerce. The 35,000,000 cotton spindles active in February made a new high record. Anthracite coal production was less than in January, but the daily rate of output about the same. It was the second largest February production on record, the output being 7,773,000 tons.

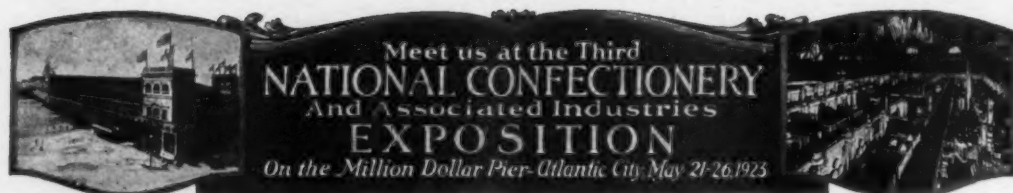
Automobile production continued to expand, and exceeded any month since last June. Bookings for steel castings declined from the January high mark, and shipments of steel furniture also were less than in January. Activity in the building trades continues unabated. Unfilled orders for brick have increased to the highest levels since 1920. Lumber production in February was considerably higher than a year ago, and in the first half of March has risen to record heights. Building contracts awarded also continued at high levels in March.

Structural steel awards in February equalled 80 per cent of the capacity of structural fabricating shops and were the highest since last May. Wholesale prices have continued to rise. During the week ending March 24 wheat, steel, copper and chemicals have made considerable advances; copper reaching 17 cents a pound. Bituminous coal made the first advance in price this year, while cotton declined slightly after getting above 31 cents. Retail food prices, as reflected by Bradstreet's index, have declined slightly in the past four weeks. Copper production for February at 102,515,000 pounds, and zinc production at 84,886,000 pounds declined slightly from the January high records for these metals, but the daily rate of output was higher than for January in both cases.

He has achieved success who has lived well, laughed often and loved much; who has gained the respect of intelligent men and the love of little children; who has filled his niche and accomplished his task; who has left the world better than he found it, whether by an improved poppy, a perfect poem or a rescued soul; who has never lacked appreciation of earth's beauty or failed to express it; who has looked for the best in others and given the best he had; whose life was an inspiration; whose memory is a benediction.—Mrs. A. J. Stanley.

When a manufacturer shows a proper spirit of co-operation, a real desire to create a market for his products—conceding that there is a place and a demand for them—it is an essential responsibility of any dealer who accepts his representation to justify his function as a cog in that machinery of distribution by equal co-operation.—Melville W. Mix.





## All Aboard for Atlantic City

**E**VERYTHING indicates a very large attendance at our 40th Annual Convention, which will be held in the Hotel Traymore, Atlantic City, N. J., on May 23, 24 and 25.

Hundreds of railroad identification certificates have been issued to members and their families, and representatives.

The special reduced fare of one and one-half the regular fare for the round trip will effect quite a saving for our members, especially those from far away points. The tickets for the reduced fares will be on sale May 19, and are good returning to May 21. See our Traffic Circular dated February 23 for details.

The sessions of the convention will be held in the Rose Room of the Hotel Traymore.

### Registration Details

The Registration and Information Office will be located near the entrance to the Rose Room.

Members and guests are urgently requested to register *immediately on arrival*, that there may be no delay in the sessions of the convention.

Active members and their representatives will be given blue registration cards; associate members and their representatives will be given yellow registration cards; the ladies will be given white registration cards, and the guests will be given pink registration cards.

Will you kindly instruct your representatives relative to making out and signing the registration cards? Past experience has shown that frequently salesmen and other representatives do not know whether their firm is an active or an associate member. They either fill out the wrong kind of registration card, or it is necessary for those in charge of the Registration Bureau to refer to the membership list in order to find out to which class of membership the firm belongs. This delays the work of registration and is a source of annoyance to others who are waiting to make out their registration cards.

Please inform your representatives as to the class of membership to which you belong and the kind of registration card which they should make out as referred to above.

An official convention badge, program and other information pertaining to the convention will be given to each person when registered.

When you receive your official convention badge, *print in your name on the card—do not write—print plainly so that others may know who you are.*

The officers and members of the Executive Committee and the honorary members will receive badges with red, white and blue ribbons; active members will receive badges with blue ribbons; associate members will receive badges with red ribbons; the ladies and guests will receive badges with white ribbons.

The official convention badge must be worn during all the sessions of the convention as a means of identification. No one will be admitted to the sessions of the convention without an official convention badge.

### Registration Fee

There will be a registration fee of \$5.00 for each person registered.

The funds so raised will be used to defray the expenses of the theater party, golf tournament and other entertainment features of the convention.

This plan was first adopted at the Chicago convention last year and was so satisfactory that our Executive Committee has decided to adopt it as a permanent feature of our conventions. The registration fees at the Chicago convention were sufficient to pay all the entertainment expenses.

This arrangement makes our annual conventions self-supporting and does away with the necessity and embarrassment of calling on the local members each year for donations to pay the convention expenses.

## Convention Program

### Wednesday Afternoon, May 23

Dr. F. L. Hoffman, Dean of Advanced Department of the Babson Institute, will favor us with an address on "Business Fundamentals and the Business Outlook."

Dr. Hoffman for many years was statistician and vice-president of the Prudential Insurance Company and is recognized as an authority on business problems. He is a man of wide reputation and greatly in demand as a speaker on business topics. His address will be an inspiration and of great practical value.

We will also be favored with a short informal talk on Wednesday afternoon by Honorable

Sydney W. Pascall of James Pascall, Ltd., the famous confectionery and chocolate manufacturers of London, England.

Mr. Pascall has made arrangements to attend our convention and has kindly consented to favor us with an informal talk in reference to the candy industry in England, which I am sure will be very interesting to our members.

Our convention would not be complete without a practical, forceful talk by Mr. V. L. Price. He will, therefore, address our convention on Thursday forenoon, and has chosen for his subject, "Making the Candy Business Better." Those of our members who have had the privilege of hearing Mr. Price's addresses at our previous conventions need not be reminded that Mr. Price thinks a great deal, says what he thinks, and knows how to say it, and that his hearers will take something back home with them that they will remember.

#### Thursday Afternoon

We are to have the privilege of hearing an address by Mr. S. E. M. Crocker, of the Division of Simplified Practice of the Department of Commerce, Washington, D. C. His subject will be "Simplification in Industry," which will be illustrated with lantern slides.

Mr. Crocker has an important message for the candy industry which we are sure will be very interesting and of practical benefit to the industry.

#### Friday Forenoon, May 25

Mr. J. George Frederick, president of the Business Bourse of New York City, will address the convention. His subject will be "Putting Modern Business Under the Research Test."

Mr. Frederick is also president of the Sales-Manager's Club and a member of the Executive Board of the Commercial Standards Council of New York City.

He has addressed a large number of trade conventions and has a national reputation as a forceful speaker on live business topics.

The President's address and the various reports will be received during the regular sessions of the convention, as has been customary in the past, and, therefore, need not here be referred to in detail.

There will be a meeting of the Executive Committee, Nominating Committee and Resolutions Committee on Tuesday, May 22.

If a sufficient number of package goods manufacturers express a desire for a conference, such a conference will be held on Tuesday, May 22. All of the large package goods manufacturers have been asked to express an opinion as to whether it would be advisable to call a conference at the time stated.

#### Entertainment Program

Mr. Fred V. Wunderle, Philadelphia, Pa., is chairman of the Entertainment Committee. He

informs us that the committee is determined to maintain the reputation of past conventions for exceptionally attractive high-class entertainment features.

#### Golf Tournament

The golf tournament will be held on Monday, May 21, on the links of the Seaview Golf Club, as stated in our circular of April 19.

Mr. W. Chester Stokes, 411 Race Street, Philadelphia, Pa., is chairman of the Golf Tournament Committee, and will be glad to answer all inquiries relative to the details of the tournament.

#### Other Entertainment Features

The other entertainment features are practically completed and include a bridge party and luncheon for the ladies at the Hotel Traymore on Wednesday; a theater party on Wednesday evening for everybody, and the regular annual banquet on Thursday evening, to which everybody is invited and will be the most notable entertainment feature of the convention. High-grade musical attractions will be given during the banquet, followed by dancing.

The Entertainment Committee must know how many to provide for at the banquet, and members are urged, therefore, to purchase their banquet tickets at the time that they register.

#### Distribution of Souvenirs

The distribution of complimentary souvenirs by members of our Association at our annual convention is a long established custom which at various times has created situations that have been very embarrassing to the hotel management and the members of the Entertainment Committee in charge of the banquet arrangements.

The Executive Committee, after a careful consideration of the matter, unanimously decided that no souvenirs should be distributed at the convention in the lobby or halls, adjacent to the convention hall or during the banquet, except those provided by the Entertainment Committee.

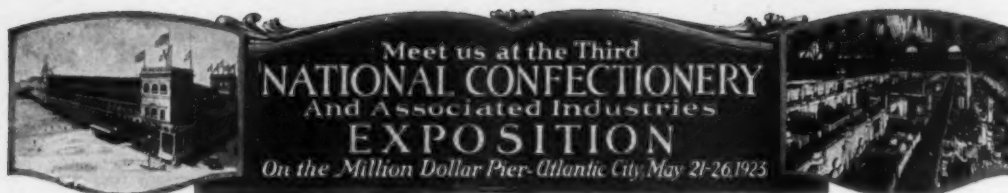
#### Exposition On Million Dollar Pier

The National Confectionery and Associated Industries Exposition will be held on the Million Dollar Pier during the week of the convention. Passes to the exposition will be issued to all who register at the convention.

Passes entitling the holders to free rides in wheel chairs from the Hotel Traymore to the Million Dollar Pier will be issued to all registering at the convention.

The exposition will undoubtedly be one of the notable features of our convention. There will be exceptionally attractive exhibits of a great variety of machinery, equipment, tools and supplies of various kinds of special interest to candy manufacturers who are in any way identified with the candy industry.—From *H. C. A. Bulletin*.





## With the Exhibitors

The exhibitor's firm name, space or booth number at the Young's Million Dollar Pier and a brief news item about each respective exhibit based on information received in answer to questionnaires. Where only firm name and space number appears, the questionnaire was not returned.—*Editor.*

### EXHIBITORS TO THE MANUFACTURING TRADE:

#### **Acme Steel Goods Company. No. 58.**

Exhibiting: Acme nailless system of strapping wood and fibre candy boxes, pails, and practically all forms of shipping packages, also Acme barbed box straps, pail clasps, seals and arrows, etc.

In attendance: C. J. Bruneel, H. G. Merrill.

#### **Aluminum Company of America. No. 149.**

Exhibiting: Aluminum foil.

In attendance: E. J. Mejia, R. B. Ferree, E. A. Williams, J. F. Linthicum, E. O. Vogelsanger, T. A. Torrence, R. E. Powell, J. F. Walton, Jr.

#### **American Plastic Products Corporation. No. 98.**

Exhibiting: Candy boxes, advertising signs.

In attendance: Herman Rheb, Edward Jones, Harold Fischer.

#### **The Aridor Co. No. 75.**

Exhibiting: Aridor display jars and moisture extracting devices.

In attendance: Paul S. Moyer, Martin L. Cassell, J. W. Barrett, Louis Weigert.

#### **Atlantic Gelatine Co. No. 50.**

Exhibiting: Edible gelatine for marshmallow work.

In attendance: David Cyrus Babcock, Arthur F. Vyse, A. C. Bernard, Wallace H. Jose.

#### **Ayer & McKinney. No. 49.**

Exhibiting: Powdered skimmed milk, powdered whole milk, milk fat, sweet cream butter.

In attendance: W. B. Seward, B. D. White, W. S. Draper.

#### **Franklin Baker Company. No. 28.**

Exhibiting: Baker's desiccated cocoanut. "Gem Imported," "Domestic Sweetened" and "Golden Toasted" cocoanut.

In attendance: Franklin Baker, Fred Leser, Jr., S. B. Ferguson, H. P. Haldt, W. I. Goodwin.

#### **Bendix Paper Company.—Nos. 86-87.**

Exhibiting: Lithographed labels, specially designed for candy boxes, seals, hand-colored bromide pictures, watoline, Bendipads, Bendifane, etc.

In attendance: P. R. Bendix, C. W. Kingsbury, R. L. Magaw, R. H. Harding.

#### **Blumenthal Bros. Nos. 145 and 146.**

#### **Boyles Candy Publications. No. 80.**

#### **Brooks Bank Note Co. Nos. 96 and 97.**

#### **B. H. Bunn Company. No. 16.**

Exhibiting: The Bunn Package Tying Machines, including the "Turn Table" model, for winding the twine both ways about the package at one operation. This machine designed expressly for the candy manufacturer.

In attendance: Harry E. Bunn, Maxwell Lind.

#### **California Fruit Growers Exchange. No. 61.**

#### **The Candy Manufacturer Publishing Company. Nos. 31 and 32.**

Exhibiting: Prospectus of "The Candy Manufacturer Blue Book," the first and only complete year book and buyers' directory of candy and chocolate machinery, factory equipment and confectioners' supplies of all kinds.

Complete file of previous issues of "The Candy Manufacturer."

A question and suggestion box to receive the written questions and problems of our readers to be handled through the information bureau of the magazine.

In attendance: Earl R. Allured, Mr. and Mrs. Alex Hart, Jr., George McLaren.

#### **Clinton Corn Syrup Refining Company. No. 111.**

#### **Combustion Utilities Corp. No. 91.**

Exhibiting: Atmospheric and blast confectioners' furnaces and batch warmers.

In attendance: H. W. Lisenby, W. B. Kopfer, G. L. Ballard.

#### **Continental Paper and Bag Mills. No. 71.**

Exhibiting: Glassine bags, embossed and white laid confectioners' bags, advertising bags, paper napkins, wrapping paper, etc.

In attendance: E. Bloom, G. Stuhr.

#### **R. U. Delapenha & Co., Inc. No. 197.**

Exhibiting: Glace fruits, crystallized ginger, Pascall's hard candies.

In attendance: R. S. Delapenha.

#### **J. P. Devine Company. Nos. 81 and 82.**

#### **T. M. Duché & Sons. No. 68.**

Exhibiting: Gelatine, shelled nuts and other confectioners' supplies.

In attendance: R. B. Farquhar, J. W. West, E. W. Broom, R. G. Lorson, G. W. Dyne, W. F. Graessle, E. V. Wollard, W. H. Shape.

#### **Thomas W. Dunn Company. No. 29.**

Exhibiting: Edible gelatine specially produced and blended for the confectionery and ice cream industry.

In attendance: F. E. Hollweg, P. H. Manners, J. F. Tillack, A. Miller.

#### **Ferguson & Haas, Inc. Nos. 13 and 14.**

Exhibiting: Bar wrapping machine for printed paper or foil fed from roll. Lollypop wrapping machine.

In attendance: M. B. Ferguson, Edward Haas, A. B. Hull.

#### **Foote & Jenks. No. 147.**

Exhibiting: Soluble flavor concentrates exclu-



sively, natural and compound flavors for makers of confectionery.

In attendance: T. J. Torjusen, C. R. Foster, C. H. Redding.

**Franklin Sugar Refining Co. No. 57.**

Exhibiting: Franklin Sugar Products.

In attendance: W. W. Frazier, 3rd, C. W. Nordland, J. J. Sleight.

**General Electric Company. No. 11.**

Exhibiting: Fractional HP motors, small motors and control.

In attendance: C. H. Scott, W. J. Bray, L. W. Shugg, R. S. Coulter, J. M. Hollister, S. Littlejohn, S. E. Uncapher.

**The Gin-Wol Company. No. 193.**

Exhibiting: Fancy candy box wraps and wrappers featuring The Gin-Wol Process.

In attendance: William Ginsberg, Milton Vinick, Joseph Davis, Leo McDonald.

**Haug & Company. No. 192.**

**A. W. Hutton Manufacturing Company. No. 33.**

**International Company. No. 42.**

**International Printing Co. of Indiana. No. ?**

Exhibiting: "Hercules" paper boxes for bulk candy and our Rotary Make Up Machine.

In attendance: E. A. Hunt, M. Hess.

**Jaburg Bros., Inc. Nos. 201 and 202.**

Exhibiting: An up-to-date utensil department for confectioners and ice cream makers. Featuring power driven 10-gallon ice cream machine.

In attendance: H. Hasenbein, H. F. Gross, H. Zimmerman.

**Johnson, Cowdin, Emmerich, Inc. No. 196.**

Exhibiting: Silk ribbons for tying candy boxes.

In attendance: Prince Michael Cantacuzène.

**Kay-White Products, Inc. No. 38.**

Exhibiting: Confectioners' specialties, nougat creme, caramel paste, fountain toppings, etc.

In attendance: W. L. Wisner, J. H. Bender, J. T. Shanahan, N. W. White, Carl Katzenstein.

**H. Kohnstamm & Company. Nos. 88 and 89.**

**Merrell-Soules Sales Corporation. No. 198.**

**Thomas Mills & Bro., Inc. No. 1.**

Exhibiting: Confectioners' equipment.

In attendance: Wm. M. Cranston, John G. Mills.

**National Aniline & Chemical Company, Inc. Nos. 84 and 85.**

Exhibiting: Certified food colors and malic acid.

In attendance: John Young, L. Matos, E. A. Johnson, E. W. Bowman, H. B. Olmsted, J. Pontin, F. W. Beecher, C. E. Blakeley, E. L. Rimbault, George Savo.

**National Art Company. No. 99.**

**National Bundle Tyer Co. No. 94.**

Exhibiting: Parcel tying machines.

In attendance: Lynn G. Rouget, C. H. Marks, P. B. Caley, J. T. Carpenter, F. S. Saxton.

**National Equipment Company. Nos. 204 to 214.**

Exhibiting: No. 5 roaster, cracker and separator, Bausman disc process for liquor, 1,000-lb. melting kettle, Bausman Battery, New Automatic Wood Mogul, the enrober, Schrafft system.

In attendance: F. H. Page, G. A. & A. L. Bausman, K. B. Page, W. G. Tucker, H. C. Baum, E. F. Moody, W. E. Haskell, D. C. Cottreal, W. H. Baush.

**National Seal Company, Inc. No. 148.**

Exhibiting: Duplex seals for glass containers and Titenrite seals for tin containers.

In attendance: Paul Muller, R. A. Peterson, D. F. Dodds.

**Northwestern Confectioner. No. 8.**

**Nucoa Butter Co. No. 69.**

Exhibiting: Nucoa Products.

**The Nulomoline Company. No. 12.**

Exhibiting: Nulomoline and an especially selected line of candies from foreign countries.

In attendance: J. P. Booker, James A. King.

**Henry H. Ottens Manufacturing Company, Inc. No. 20.**

Exhibiting: Confectioners' specialties, flavoring extracts, certified colors, etc.

In attendance: William E. Weber, H. G. Schiedt, H. L. Lingle, John A. Quill.

**Read Machinery Company. No. 90.**

Exhibiting: Mixing machinery of all kinds.

In attendance: O. R. Read, J. S. Prendergast, Eduard Panchard.

**F. J. Schleicher Paper Box Company. Nos. 79 and 100.**

Exhibiting: The latest ideas and suggestions for candy boxes and novelty containers.

In attendance: B. F. Fischer, Louis Schleicher, Allen Schleicher, Frank Schleicher.

**Harold A. Sinclair. No. 200.**

Exhibiting: Delft Gelatine.

In attendance: Harold A. Sinclair, H. Howland Sinclair, Frank L. Colburn.

**The Smith Scale Company. No. 95.**

Exhibiting: "Exact Weight" Scales.

In attendance: Walter S. Smith, R. H. Meier, H. D. Ridge.

**Stadler Photographing Company. No. 41.**

Exhibiting: Photographs in color of candy and candy packages and colored counter and display cards.

In attendance: C. W. Millis, A. F. Smith.

**W. J. Stange Co. No. 199.**

Exhibiting: Flavoring materials and certified food colors.

In attendance: R. J. Rooney.

**The Tin Decorating Company of Baltimore. Nos. 77, 78, 101 and 102.**

Exhibiting: Decorated tin candy containers.

In attendance: E. B. Mower, M. H. Connor, Jules Smucker, J. U. Lemmon, Sr., W. H. Green, L. F. Boyles, J. U. Lemmon, Jr.

**Upressit Products Corporation. No. 62.**

Exhibiting: Upressit candy jars, Upressit glass and tin containers, Upressit fruit jars, Upressit jelly tumblers, Upressit salt and pepper shakers, etc.

In attendance: George W. Townshend, T. E. Heidenreich, James B. Taylor, Jr., Stowell C. Stebbins, Charles Owens.

**Vacuum Candy Machinery Co. Nos. 92 and 93.**

Exhibiting: Simplex vacuum cookers, Simplex plastic press equipment, Simplex cutting machine, Simplex curl machine.

In attendance: C. P. Jaeger, S. S. Whitehurst, C. H. Booth, P. H. Schlueter.

**Van Houten, Inc. Nos. 103 and 104.**

**Voorhees Rubber Manufacturing Company. No. 74.**

Exhibiting: Rubber candy molds.

In attendance: E. M. Frazier, R. W. Perkin.

**John Werner & Sons. Nos. 190 and 191.**

**White-Stokes Company, Inc. Nos. 45 and 46.**

Exhibiting: Semi-prepared raw materials for making candy, soda fountain toppings, etc.

In attendance: R. J. Burke, E. G. Davidson, Louis O. Stokes, G. U. Vanneman.

**H. O. Wilbur & Sons. Nos. 53 and 54.**

# Planning and Maintaining Production Standards and Schedules (part 2)



The Fifth article of an extensive series on

## ***Candy Factory Management Methods, Factory Practices Material Handling, Labor Management, Etc.***

Based on personal interviews with manufacturing confectioners and a special investigation of their manufacturing problems

**by Ralph G. Wells**

*Member Committee on Industrial and Commercial Planning, Boston Chamber of Commerce.  
Member of Faculty, Boston University—College of Business Administration.  
Formerly President National Association of Employment Managers.*

Exclusively for The Candy Manufacturer

THE consensus of opinion among the candy manufacturers is that the planning of the production schedule and laying out work presents one of the most difficult problems in the industry. This is because a majority of manufacturers make a wide variety of goods and the sales demand for the different varieties change rapidly from day to day. Further complications arise from the fact that unless one has excellent storage facilities the goods cannot be manufactured very far ahead and still delivered to the customer in good condition. In addition to the expense of maintaining adequate storage facilities, it takes a great deal of working capital to carry such a large inventory as would be necessary if large quantities of each item were made very far in advance of the sales demand.

As one manufacturer stated, it would be easy to plan his production schedule if he could afford to maintain ample storage facilities and had enough capital so that he could tie up large amounts in manufactured product, and run the risk of not being able to sell all that he had made.

One of the principal handicaps in the planning of the production schedule is the lack of definite information as to what sales will be. For this reason the first step necessary to intelligent planning is the analyzing of past sales experience and the building up of a body of information from which it will be possible to estimate with a fair degree of accuracy what quantities of each class of candy will be sold. If one is

manufacturing only a few staple products it is comparatively easy to lay out a schedule several months in advance.

Another prominent manufacturer states in a recent letter:

"We plan our work from two to three months ahead, owing to the fact that we go out in the spring and contract the jobbers for the following season's wants; therefore, by the first of July we have all the contracts in the house. We know exactly what we have to ship August 15, September 1, September 15, and so on through the season; that is, on contract orders, and we know just about what percentage of our business comes in by contract. Therefore, we can tell just what each day's shipments must be and what our factory must turn out. Further than this, we know just where our factory is on production every hour in the day, as we have a gage in our office that registers every box of cough drops that is manufactured; that is, as it is delivered to the shipping room on the conveyor. This gage, or counter, counts each and every box as it passes a given point. Therefore, at ten o'clock in the morning we can tell whether or not our production is behind or ahead, or, in fact, any hour of the day.

"It enables us to purchase sugar ahead—cartons, shooks and everything that goes into the manufacture of cough drops, so that we can have this raw material rolling to us and in stock to take care of our immediate needs.

"With assistance such as this, we can get very accurate costs. Furthermore, we know

**Mr. Wells' series will include the following subjects:**

1. Management Problems and Control Methods in the Candy Industry.
2. Manufacturing Standards, Production Programs, Co-ordinating Sales and Production.
3. Production Control, Schedules, Routing, Despatching.
4. Material Control, Purchasing, Stores Keeping, Care and Handling.
5. Plant Location, Layout, Arrangement, Machinery and Equipment, Power Problems.
6. Selecting the Best Methods, Job, Time and Motion Study.
7. Financial Problems, Budgets, Cost Control.
8. Waste Elimination, Maintaining Production Standards, Quality, Time and Cost.
9. The Management Organization, Departmental Functions, Co-operation and Co-ordination.
10. Labor Planning, Policies and Practices.
11. Labor Management, Relations with Employees, Maintaining an Effective Working Force.
12. Looking Ahead, Sales and Business Forecasts, Experimental and Research Work, The Annual Overhauling.

promptly each morning how many pounds of coal we used and how many pounds of one product we made. If we don't get the required output, we can tell in a minute whether we have poor coal, whether our boiler tubes are in poor condition, or lay our finger right on the trouble."

Another factory manager in charge of making chocolate-covered goods exclusively has found that it pays him to plan his production schedule months in advance, leaving, however, sufficient margin in his program so that the schedule may be adjusted from time to time as conditions indicate and to take care of increasing demands for any one item. This manufacturer finds that he gets the lowest manufacturing costs by maintaining a fairly even production throughout the year. He attributes this lower cost to the fact that first he avoids the expense of idle machinery by keeping it busy on profitable work throughout the year, and, second, that as he can give fairly steady employment, he gets the better class of workers and has a better trained organization. It is his claim that the savings resulting from this policy more than offset the added expense of carrying goods several months. It is possible for him to carry through this practice because the firm has adequate financial resources.

**Re Manufacturers of "a General Line"**

**P**ERHAPS the most complicated planning problem is to be found in those factories making a wide variety of specialties and penny goods. Here the trade fluctuates rapidly from one kind of candy to another; new varieties are constantly in demand, and the candy buyer is frequently influenced by the size and general appearance of the piece rather than by quality or any refinements of flavor. In such lines it is not possible to get orders as far in advance as can be done in the more expensive and staple varieties. Sometimes the trade is with dealers who buy small quantities from day to day and give their business to the house that carries a large stock.

Each firm does two kinds of planning; first, it lays out a general program for a long period which is merely an estimate or forecast of what the factory will be called on to make. This serves as a basis for purchases of material and

supplies. Second, it must work out accurately the daily production schedule. The two phases have to be correlated by constant adjustment, but one is merely an estimate and the other is the actual plan.

In the plants making a number of different kinds and grades it is the usual practice to carry on hand a stock of goods large enough to fill all orders promptly. Except where there are insufficient goods in the stock room to fill the order, no goods are made specifically to apply on the order of any particular customer. There are, of course, exceptions to this rule where a special order has been taken from some customer for the manufacture of a particular brand of goods or where a dealer wishes an unusually large quantity for a sale or other purpose.

Thus the controlling element in the planning of production under such conditions is the quantity of each variety to be carried on hand each day by the stock room, and it is here that the importance of past sales experience comes in as an aid in determining the maximum and minimum quantities to be carried. If a manufacturer could estimate the quantities of each variety he would need during a given period within 10 or 15 per cent of the actual consumption, his planning problem would be greatly simplified.

Some manufacturers find that their advance orders for certain kinds of candy bear a fairly constant relation to the total quantity of that class that will be sold during the season, and use this information as an aid in making their yearly estimates. One manufacturer, who has a detailed record of the monthly sales of each class of goods for the past ten years, claims that this knowledge of the relation of advance orders to total business has proved of great assistance, and that, because of the care he exercises in making his estimates, he seldom has any large quantity of stock left over at the end of the season.

The usual practice in candy plants of the type under consideration is to check incoming orders against the daily stores balance, deducting from the quantities on hand the amounts to be shipped out. The remaining factor gives the



quantity of each item which will be left after orders on hand are filled.

The next step is to go over each item and determine about what quantity will have to be manufactured in order to bring the stock up to the amount that is considered normal. Production orders are then made out instructing various departments to make a sufficient number of batches to give the quantity required. After the production orders are made up, the executive in charge of this scheduling determines which goods shall be manufactured first. The date when each lot is to be delivered to the stock room is entered on each production order, so that the foreman of each department can plan the work of his department accordingly. In case there is insufficient stock on hand to fill orders, a shortage ticket is given to the foreman with instructions to give precedence to the lot needed. At the beginning of any rush period, such as the Christmas season, the factory begins to build up a reserve stock, manufacturing ahead such goods as have the best keeping qualities and such other items as can be handled satisfactorily in the company's storage facilities.

Thus it will be seen that the production schedule is built up from five sources:

- (a) Quantity of stock needed to maintain the proper amount on hand.
- (b) Shortage resulting from unfilled orders.
- (c) Production scheduled in advance of rush periods.
- (d) Special orders for special customers.
- (e) Productions scheduled in anticipation of future business for the sake of keeping machinery busy and to give employment to those employees that the company wishes to retain permanently in its organization.

The extent to which production can be planned ahead is limited—

- (a) By the uncertainty of the sales demand.
- (b) By the keeping qualities of the different varieties.
- (c) By available storage capacity, and the facilities for keeping certain kinds for a longer period than they could be ordinarily kept in good condition in open stock.
- (d) By the amount of capital which the firm can afford to tie up in advance of immediate sales.

The reasons for planning in advance are as follows:

- (a) To secure more economical and longer runs on each kind and variety.
- (b) To have on hand sufficient quantity of stock to fill orders promptly.
- (c) To anticipate rush seasons and avoid the increased expense of putting on new help, running the factory on a rush schedule, and working overtime.
- (d) To regularize production in order to retain the same employees throughout the

year and to avoid losses due to idle machinery and equipment.

#### **A Constructive Suggestion; Think it Over**

SEVERAL candy men in charge of production work believe that improved planning and control methods can be developed which will enable manufacturers to plan further ahead than is the usual practice. Judging from the plants visited and correspondence from various candy factories, the average plant does not plan its production schedule for more than three days in advance, except in the case of those varieties, such as gums and similar goods, which require a longer time to prepare. The exception to this rule is during the period when a plant is approaching a busy season and begins to build up a reserve stock. These men believe that the schedules for many departments could be laid out several weeks in advance by allowing a small margin to take care of trade fluctuation. It is their claim that such planning will give greater production at a lower cost and make it possible for foremen and other executives to regularize their work, keep a better trained force, and still have an opportunity to devote more attention to the real problems of improving the quality of the product and the efficiency of their working force.

One of these men believes that with proper facilities he can centralize the production planning and carry his routing and scheduling so far as to specify the actual working schedule of such machines as the moguls and enrobers. This is done in one factory recently visited and excellent results have been secured.

This is too important a matter to be decided offhand, and THE CANDY MANUFACTURER would like to have expressions of opinion from its readers as to how far ahead it is feasible to plan production and what methods should be used for this purpose.

In considering the subject of production control it should be appreciated that planning includes something more than determining the amount of each kind of candy to be made and the order of precedence which will apply to each batch. It includes among other things—

- (a) The routing of work through the plant from department to department, or from operation to operation, if more than one is involved.
- (b) The determination of the time when work should be started and finished in each department.
- (c) The control of materials to make sure that there will be a sufficient quantity of the right kind on hand at the right time and in the best condition for use.
- (d) The control of machinery and equipment to see that these are in good working order and ready for the work to begin on time.
- (e) The regulation of the working force to see that an adequate number of properly trained employees are on hand.



- (f) The proper supervision of the working force and of operations, together with adequate inspection of work in process, to make sure that standards are being maintained and instructions carried out.
- (g) The provision of some means of handling emergencies, and rearranging schedules promptly, as conditions may require.

- (h) The adequate control of the quantity of materials used in each batch, the amount of labor time expended in making, finishing and packing the product, and the length of time required to do the work for which overhead is charged, so that the manufacturing costs may be kept down.

## A Comprehensive Control System That Is Being Successfully Used

**T**HE following discussion of a comprehensive control system will serve to bring out more clearly the methods suggested above.

In this control system a general yearly manufacturing and sales program is made out in advance along the lines indicated in the March issue of *THE CANDY MANUFACTURER*. This plan is divided roughly into the following seasons:

January to Easter and Mother's Day.

Easter to fall storage period.

Fall storage period to Christmas and New Year's.

The schedule for each period is laid out in sufficient detail to permit the placing of orders for raw materials, boxes, wrapper, and box tops, far enough in advance to insure their being received in good season.

Such a program also facilitates the planning of the labor schedule so that a sufficient force of well-trained employes may be secured in ample time. It makes possible any changes in equipment or factory layout at a time which will not interfere with production.

While the actual production schedule is only made out one week in advance, it is nevertheless necessary to prepare a preliminary plan a month or more in advance of the actual performance in order that a list of raw material and supplies needed may be drawn up and sent to the purchasing department in order to insure that a sufficient quantity will be on hand. In those periods of the year when freight and transportation conditions are bad, it is sometimes necessary to plan purchases further in advance than the time mentioned above. One large candy manufacturer states that the planning of his purchase schedule and making arrangements to always have on hand the right materials at the right time is one of the most important phases of production control. He lays much stress on this as it enables him to keep his inventory of raw material down to a minimum and at the same time to avoid the risk of running out of any important item at a time when it is needed.

Each month the sales department is required to estimate the quantities of each class of goods that will sell, and this estimate is used by the

planning department as a basis for its schedule of the raw material needs. This schedule of needs is checked against quantities on hand and ordered, to determine what additional purchases shall be made.

This advanced estimate by the sales department should be an essential feature of any control system, as it places a definite responsibility for sales planning and accomplishment to this department. It also gives the production superintendent a definite basis upon which to work. One executive has gone so far as to suggest the adoption of a practice prevalent in other industries, in which the sales division is conducted almost as if it were a separate business and is required to order its merchandise from the factory in the same way that the merchandise manager of a large store would make his purchases.

### The Weekly Production Schedule

**T**HE planning of the weekly production schedule is done on Friday and Saturday, as this has been found for several reasons the most favorable time. First, the salesmen attend a weekly conference on Saturday, and it is possible, through them, to get a more accurate estimate of what the trade is calling for. Second, Saturday is a good time for conference with foremen regarding the next week's work.

Although the schedule is made up on Saturday, the production week runs from Tuesday to Tuesday. This makes it possible to hold the schedule open until Monday morning, so that any orders received may be taken into consideration, and it also gives the foremen Monday morning in which to prepare to start the schedule Tuesday morning. This means, of course, that on certain items some of the preliminary processes are started on Monday.

In actual practice the quantity of goods on hand in the store room is the controlling factor in the making of this weekly schedule, and customers' orders are considered only as they indicate the extent to which the stock of goods in the store room, or in process of manufacture, will be depleted as these orders are filled.

The planning department receives from the stock clerk a daily report of the finished goods on hand, as shown by his balance of stock record. These reports are watched carefully

each day and compared with the quantity of goods in process, so that if an unexpected shortage of any one item should develop, a rush manufacturing order can be put through and the current schedule rearranged to permit the making of the goods needed in time to take care of the unexpected shortage. As it takes from two to three days to manufacture any class of goods, it has been found that the planning department must look ahead for about three days. For this reason the standard quantity of any item to be carried on hand represents not less than a three-days supply. This quantity is, of course, increased as demand increases and tapered off as the season on the item closes.

Ordinarily, however, the planning department—because of its actual knowledge of the quantities of each item used during the season, as shown by past sales records—finds it possible to lay out its production schedule so that rush orders are the exception rather than the rule.

As an aid to greater flexibility, two separate stocks of finished goods are maintained. One consists of unpacked goods in racks; the other consists of packed goods ready to be shipped. The stock of unpacked goods serves as a reservoir from which goods for packing may be drawn as needed. While, of course, a greater part of the candy is scheduled direct through the packing room, nevertheless the maintenance of a reservoir of unpacked goods in racks makes it unnecessary for production to be planned with reference to special assortments. So long as the stock of unpacked goods is kept up to the normal supply, it is a simple matter to have them packed in any special assortments as needed.

#### **Factors in Planning Weekly Schedule**

In the making of the weekly production schedule the planning department takes into consideration several factors.

1st. There is established for each season a normal quantity of stock of each item to be manufactured and carried on hand. This standard quantity is based on past sales experience and adjusted in accordance with current business conditions.

2nd. The amount to be manufactured each week must necessarily vary in accordance with the sales campaign, weather conditions, or other factors that cause fluctuation in demand.

3rd. In determining quantities to be manufactured each week the planning department must consider, in addition to the factors mentioned above, the daily balanced production capacity of each department, the quantities of other goods that must be manufactured during the same period, and the most economical number of batches to be run at a time. Some plants make it a rule, except in emergencies, never to schedule less than a half-day's run on any item. The profit in the candy business lies in straight runs. Too frequent changes increase manufacturing costs.

In the case of factories having sufficient

equipment and a large enough volume of business, certain machines are kept running continuously on one kind or grade of goods. Unless the work force in each department is exceedingly flexible and can be shifted at will from one kind of work to another, sufficient work of each class of goods must be scheduled daily to keep the various groups of workers fully employed. If the work scheduled for a room is of the kind that cannot lay over night and must, therefore, be cleaned up on the day that it is started, it is important for the planning department to include in the daily schedule of that room a certain amount of work that can be left over night. Then if the workers finish up the run on the first class they can fill in the remainder of the day with work on the second class.

Perhaps the most important advantage of systematic planning is that it results in a better balanced production schedule than can be obtained in any other way, and, therefore, gives lower operating costs. This is accomplished by securing the maximum use of equipment that the current volume of business will permit, and by avoiding the necessity of so much rush and overtime work, as is necessary in the factory where planning is inadequate. It avoids the manufacturing of excessive quantities in any one item and at the same time insures that when the factory is at work on any one item it will produce these in the most economical quantities and in sufficient amounts to last until it is worth while running another batch. The waste of running through a number of small orders with the resultant expense of frequent changes and wash-ups is avoided, because a normal quantity of stock on hand is maintained. Furthermore, there is less holding up of customers' orders because of shortages.

#### **From Production Schedule to Production Orders**

**W**HEN the production schedule for the week has been worked out, it is broken down into production orders for each department. In the larger plants this is handled by the work order clerk, who makes out all the necessary factory orders for the different departments. These orders are distributed to the foremen of the departments affected and they in turn plan the work of their department in accordance with the schedule prepared for them.

The schedule for each room is worked out in conference with the foreman. In practice the method pursued is for the planning department to make up a tentative work schedule and submit it to the foreman of that room for approval. If he has any changes to suggest, the differences are adjusted by conference. Thus when the room schedule is finally agreed to, it embodies the intimate knowledge and experience of the foreman and at the same time is synchronized and co-ordinated with the production schedule for the entire plant. This is particularly important where work must be handled in two or three different departments before it is finished

and ready for packing. Such a method of planning not only insures a more even flow of work from department to department, but also avoids one department making certain goods before the next department is ready to receive them.

Where the department is large enough the foreman is provided with an assistant, who really functions as a production clerk. In such cases the planning department merely gives the foreman of such a department a schedule of the work desired, indicating the time when each batch must be delivered to the next department.

There is some question as to whether the method of issuing requisitions used in this system is not too complicated for ordinary use. It differs from the method usually found in candy factories, but is given here because it illustrates a practice frequently found in other industries. In discussing this point one candy manufacturer stated that he was planning to install a requisition system somewhat similar to the one given here, while another equally large manufacturer stated that his firm had tried out such a system and found it too cumbersome for practical use.

Under the method in question requisitions covering the total amount of material needed for the work scheduled are issued at the same time that the manufacturing orders are made out. These requisitions carry the same serial numbers as the orders. The amount of material called for by the requisition is computed by multiplying the standard material allowance for each batch by the total quantity of each kind to be made. As the majority of the manufacturing orders are for standard quantities representing a half day or a day's run, it has been found in practice that the requisitions could be mimeographed and the amounts written in very readily by the clerk.

If, on account of waste, spoilage, or the failure of the material to produce the quantity of goods estimated, additional quantities are required, a special requisition, countersigned by the superintendent, must be secured. This is done to keep the superintendent in touch with any variations in the use of material. The advantage claimed for this method of requisitioning is that as it is done automatically with the making out of the work order, it saves the foreman's time, but what is more important, that it gives more accurate check on the quantities of material used. It is further claimed that as it is necessary for men in a department to have a special requisition for additional stock countersigned by the superintendent, they will exercise more care in the use of material.

#### **The System of Production Control**

Three copies of the manufacturing order are made. One is kept on file in the planning office; the other two are sent to the foreman. He retains one of these for his own records, and when the work is finished returns the other copy to the planning office as a notice that the work has been completed. Any lots not manufactured or

variations from the instructions given are noted on the back. The foreman also enters on the copy which he returns to the planning office the amount of material used and the amount of labor time required to perform the work.

As soon as the copy of the completed order is received from the foreman, the planning department notes on the schedule chart that the work has been finished and then turns the copy over to the superintendent, who checks the labor time and quantity of material used against the standards allowed for this class of work. In this way the superintendent knows exactly how the work is running through the factory, and if there is any appreciable variation from the standards he is in a position to investigate and remedy the cause immediately. Furthermore, a chart is kept showing the variations from standards by departments and classes of work, so that the superintendent knows just what departments are running behind and how accurately the standards of labor time and material required are proving out under actual production conditions.

If after checking up the day's completed work the planning office finds that any department is running behind, the superintendent is notified immediately and he investigates cause of delay. If, on the other hand, a department is running ahead of schedule, the planning office knows of it immediately and is in a position to plan to have additional work ready so that neither the machines nor the employees in the department will be idle. This gives a constant check on the progress of work, with the result that the superintendent and the production office can tell immediately whether goods are being manufactured as planned without waiting to get this information in a round-about manner, perhaps after it is too late to do anything.

#### **Handling Repair Orders**

There is another point upon which this control system differs from the usual practice and about which some question has been raised by a few candy manufacturers, although others have been quite emphatic in their approval of the plan. The planning department determines the priority of maintenance and repair orders. The actual control of maintenance work is, of course, directly under the superintendent, but in case there are a number of breakdowns which are holding up production, he looks to the planning department to indicate which ones should be completed first in order to cause the least disruption of the production schedule. It is the practice to have all machines and essential equipment overhauled at regular intervals, but during the rush seasons breakdowns frequently occur. The regular inspection of machines usually shows up the repairs that should be made in order to avoid a breakdown. All such repair work is, of course, reported promptly to the superintendent, and the planning department does not enter into the situation at all, unless the maintenance department gets so far



behind in its work that it is necessary to ask the planning department to indicate priorities.

#### **What This Production Control System Will Accomplish**

**E**XPERIENCE has shown that this control system, operated by the right man, will accomplish the following results:

1. Sufficient stock of finished goods will be maintained and kept coming through the factory to insure the prompt filling of all orders.
2. Too large a quantity of any kind of goods will not be manufactured, and the inventory of finished stock will be in proportion to actual sales.
3. Inventory of raw material and work in process will be kept at a minimum.
4. A well-balanced production schedule will be laid out (provided the sales department secures the business) to keep each department running on an even basis, securing the fullest utilization of equipment and keeping the work force employed to the best advantage.
5. Work orders will be grouped so that candies of the same class will be run through the factory together in the most economical quantities with as few changes as possible.
6. A purchasing schedule will be worked out far enough in advance to insure that material, supplies, boxes, and wrappers will be ready on time.
7. A check is provided on the quantity of materials used, to avoid wastage, misuse, and loss of material.
8. Control is maintained over the principal cost factors; i. e., the amount of materials used and the amount of labor time expended.
9. Repairs are scheduled during rush periods to avoid as much as is possible unnecessary delays and loss of time resulting from breakdowns.
10. The work of each department is co-

ordinated with the work of other departments, so that goods will move through the factory smoothly.

11. A check is maintained on the progress of work and causes of delay can be remedied immediately or the work schedule rearranged if necessary.
12. The superintendent, and to a certain extent the foreman, is relieved of a great deal of unnecessary detail and routine work, so that they may concentrate their attention on the more important things, such as maintaining quality, speeding up production, supervision of employees.

In order to carry through such a system there must be, as indicated previously, definite standards, not only of operation but also of material to be used and time required, upon which to base the planning. There must be accurate information as to past sales, together with a knowledge of the relation that advance orders bear to total volume of sales for a season. As an important part of planning is the providing of the right kind of material in the right condition at the right time, there must be some method of material control. Definite plans are needed to insure that the superintendent and foreman will have an adequate and well-trained working force to carry through the schedule. Machines and equipment must be properly laid out and maintained in good condition and running order if the schedule is to be carried through. Really the methods used for controlling these factors are a part of a production control system, but as each of these constitute a separate division of production control, a discussion of the methods used will be left until a subsequent issue of *THE CANDY MANUFACTURER*.

Definite criticisms of the suggestions made above and in previous articles are desired. If you think the methods proposed are not practical, the author would like to hear from you. If you have a better, easier, or more simple method of accomplishing the same results, we should like to know about it, and ask that you send in a letter or article describing it fully.

## **Charts and Mechanical Aids to Planning**

**I**N MANY plants it is the practice of factory production men to do all of their planning mentally and to depend on their memory for a great amount of detail. The more successful men, however, have found that it pays to relieve themselves of the burden of keeping all of these details in their mind and that it is easier to take advantage of certain mechanical aids in laying out production schedules. The man who allows his prejudice against forms to keep him from making use of charts and forms that are of real service is like the engineer or draftsman who refuses to use a slide rule or the bookkeeper who would rather spend the time to add up a

long column of figures rather than turn it over to a clerk to run upon the adding machine.

There are various types of charts and mechanical aids which are helpful in planning the work of the factory. One of these is a figuring sheet for estimating quantities to be made, which is illustrated and explained below. Another helpful chart is known as a control board. This is not illustrated because it is difficult to secure a good picture that would show it up plainly, but is described below.

A third mechanical aid is a chart such as is illustrated below for laying out the weekly production schedule by machine. It is more fre-



quently used than the slot control board because it is easier to work with on the desk and somewhat less expensive.

In addition to the foregoing, there should also be provided, as an aid to laying out a well-balanced production schedule, charts which will show:

- (a) Production capacity of each room and of each machine under normal conditions, and also the maximum capacity that can be obtained during rush periods.
- (b) The most efficient grouping of orders and different classes of work, to give well-balanced production schedule for each room.

Frequent objection to the use of such charts is that the foreman and production man must learn to sense these things and that they have this information in their minds anyway. It is further argued that the problem is so complicated that it is difficult to work it out on paper. Really this latter argument is in favor of the use of charts. Where a problem is so complicated that it takes considerable time to work it out there is a great saving in taking enough time to work it out on paper and reduce it to chart form once and for all, so that it will not be necessary to take the time to go through the matter whenever the question comes up again. This method has the advantage that there is less likelihood of any important items being overlooked where charts are used, and also that if charts are made up in conference and approved by various executives, they represent the combined judgment of several men instead of the snap judgment of one man. Charts have the further advantage that they show up plainly so that everyone can see them.

#### The Slot Control Board

The construction of a "slot" control board is much like the quotation board in a stock broker's office. The surface of the board is cut up by a number of horizontal slots. On the left hand side of the board a number or name indicating a particular machine is assigned to each slot. Across the top the board is divided into twelve equal sections representing six working days for a two-weeks' period. This gives twelve vertical columns running at right angles to the horizontal slots. These columns are again subdivided into eight smaller columns representing the working hours of the day.

There is provided for use in connection with the board graduated strips of paper, the graduations of which correspond in width to the hour columns on the control board. When it is desired to show on the board that work for a certain length of time has been scheduled ahead of a given machine, a strip of paper of the required length is cut off and inserted in the slot of the particular machine in question. Its location in the slot is determined by the day when the work is to be done. In order to identify the slip of paper the order number is written on it, together with an abbreviation to indicate

the class of goods that is to be made on the machine at that time.

The method of operating this board is as follows: As soon as the week's work schedule has been laid out the production clerk takes a sufficient number of graduated slips of paper to represent the length of time that it will take to run the different orders on the machines. These strips of paper are then inserted in the slots in the order in which they are to be run, and as their length is in proportion to the time that it will take to complete the run, and as they correspond to the same time as shown by the columns on the board, the board when filled up with the week's schedule will show exactly how much work is scheduled ahead of each machine. This type of board is preferable to a paper chart because in case of an emergency or any disarrangement of the schedule the slips of paper representing the different work orders which have not been completed can be readily changed from one slot to another to conform to any rearrangement that it is desirable to make.

#### Explanation of Estimating Sheet

*(Illustrated on next page)*

Note: Such a sheet as the one illustrated at the left facilitates the working out of the quantities of the different kinds of candy to be made each week, and does away with the practice of figuring out these estimates on an ordinary piece of scratch paper.

In practice, a separate sheet is used for each class of goods, except in the case of those having so few items that there is room for more than one class on a sheet.

**Column 1. (Article).** The names of the different varieties of candy should be printed or mimeographed in this column, to save the necessity of writing out each time.

**Column 2. (Normal stock quantity).** In this column should be printed or mimeographed the normal quantities of each item which it has been decided to carry on hand during the season. If the normal quantities vary appreciably from month to month, the expense of frequent printing can be avoided by making out a typewritten list of quantities and design in Column 2.

**Column 3. (On hand).** In this column is entered the current quantity on hand in the stock room at the time the sheet is made up.

**Column 4. (In process).** In this column should be written the actual quantities of each article being made in the factory but not delivered to the stock room.

**Column 5. (Total available).** The figures in this column are obtained by adding together the amounts shown in Columns 3 and 4.

**Column 6. (New orders).** In this column enter quantities required to fill new orders which have not been considered in making up previous estimates.

**Column 7. (Back orders).** In this column enter quantities required for any unfilled orders which are left over from previous estimates.

# FIGURING SHEET FOR ESTIMATING QUANTITIES TO BE MADE

DEPT	ARTICLE	2	3	4	5	6	7	8	9	10	11	12	13
		Normal Stock Quantity	On Hand	In Process	Total Available	New Orders	Back Orders	Needed for Stock	Requirements	Remaining Qty	Quantity to be Made next week	Remarks	
	Nougat Bar												
	Cocoanut Cream Bar												
	Peppermint Cream Bar												
	Frozen Pudding Bar												
	Belmont												
	Almond Cream												
	Chew Mallow												
	Van. Car.												
	Patties												
	Walnut Bar												
	Chocolate Fudge												
	Fruit Bar												

## CHART SHOWING WEEKLY PRODUCTION SCHEDULE BY MACHINES

DEPT	MACHINE	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
B	Maquil No.1						
	Maquil No.2						
	Maquil No.3						
C	Enrober No.1						
	Enrober No.2						
	Enrober No.3						

**Column 8. (Needed for stock).** Enter quantities of the item that should be made up this week, in addition to the amounts needed for new orders and for back orders. The figures entered in this column represent the planning or sales department's estimate of the quantities that will be needed to take care of future sales and which will be needed before the end of the period for which the estimate is being made.

**Column 9. (Requirements).** The figures in this column are merely a total of the figures in Columns 6, 7 and 8.

**Column 10. (Economical manufacturing quantities).** The figures in this column should be printed in, as they would remain the same from week to week and are merely given for reference, to aid the planning executive in determining the actual quantity to be ordered. In many cases this column can be omitted.

**Column 11. (Quantities to be made next week).** In this column the executive enters the amounts he finally determines to manufacture after comparing his requirements with the total amount available and taking into consideration the most economical quantities to be manufactured at one time.

Columns 12 and 13 are not necessary, but are convenient for entering Remarks.

It should be noticed that the figures appearing in Columns 2 and 10 are standard quantities, remaining the same from week to week, and can, therefore, be printed or mimeographed in, as explained above.

One advantage of this sheet is that it brings together on one piece of paper, in a condensed form, a report of—

(a) Stock on hand. (Column 3.)

(b) Stock in process. (Column 4.)

(c) Total unfilled orders. (Columns 6 and 7.) and, therefore, constitutes a weekly report sheet, on which there are additional spaces for the executive to make up his estimates of the quantities that he should order made.

Another advantage of this sheet is that the figures can be filled in by a clerk or assistant, so that all the executive has to do is to make his additions or subtractions and write in Column 11 the quantities of each variety that he decides to order the factory to make during the period which the estimate covers.

After this has been completed, the sheet can be turned over to an assistant, who will make out the necessary orders and see that they are passed through the regular routine.

#### The Machine Production Chart

**T**HE chart illustrated opposite is used in laying out the work for each machine. The method of making up this chart is as follows: As soon as the planning department has determined on the quantities to be made during the coming week, and the orders have been grouped they are then arranged in sequence and a line is drawn for each manufacturing order that is to be run on that machine that day, in the Mon-

day column opposite the particular machine on which it is to be made. The length of the line indicates the time it will take to perform the order. In the above chart the day is subdivided into eight hours. A number is written on each line opposite the name of the machine to indicate the order number, and a code letter following the number to indicate the class of goods. As each order is completed a wavy line is drawn through the straight line indicating the order; so that the chart not only shows the work scheduled ahead of each machine but the progress of the work in the department. It is therefore possible to tell at a glance whether the department is keeping up to its schedule.

It is necessary in laying out these schedules to make sufficient allowance between each order to take care of the usual delays and stoppages that necessarily occur. After the chart has been in use for a while experience soon shows the percentage of allowance that must be made for such delays.

#### Sylvester Nichols to St. Cloud.

The Sylvester Nichols Company, Little Falls, Minn., wholesale candy manufacturers, will move its entire plant from Little Falls to St. Cloud May 1, it was announced recently by Charles Sylvester, president. The company has been in business at Little Falls for the last twenty years and has been dealing in candy, butter and ice cream. The change is necessitated, according to company officials, in order to obtain better marketing conditions and shipping facilities.

#### W. C. Nevin, 1855-1923.

W. C. Nevin, president of the W. C. Nevin Candy Co., of Denver, Colorado, passed away April 15.

Mr. Nevin was born in New Sheffield, Pa., on July 19, 1855, and went to Denver in 1879. He began to manufacture candy there in 1881 at their present address, 1641 Blake St., where he continued the business until the time of his death, or a period of over forty-two years.

Starting in a small way, he built up a wonderful business and a reputation for making only the highest grade of candies. The products are sold principally through the mountain states, but some specialties are marketed as far east as Chicago and west to the Pacific Coast. He was a member of the National Confectioners' Association, as well as local trade organizations, and had always been an enthusiastic supporter of them.

Co-operate and Assist—not Criticize and Find Fault.  
—Fra Elbertus.





# Pointers for the Factory Engineer

By W. F. Schaphorst, M. E.

*The power plant and engineer's problems have been somewhat slighted in our editorial program, but we will have more articles along this line this year. We will welcome suggestions and questions which may be made the basis for special investigations and articles on this or any other phase of factory operation.—Editor.*

## Simple Way to Save Fuel

**O**NE of the simplest and best ways for the saving of fuel in the power or heating plant is to install a good damper regulator. A first-class regulator will automatically save 15 per cent of the fuel or even more by so regulating the draft that valuable heat will not be wasted up the chimney. Since more fuel is burned during winter months than at any other time, the damper regulator has its greatest value at that time. According to the experience of the writer, the hydraulically controlled regulator or one controlled by a positive external means usually gives the most satisfactory service.

## Uncovered Steam Pipes

According to tests, it has been shown that an average of 0.76 lbs. of steam are wasted per hour due to every square foot of uncovered pipe. Thus, if a confectionery plant contains 100 square feet of uncovered surface we have  $100 \times 0.76 = 76$  lbs. of steam wasted per hour. If 7 pounds of steam are evaporated per pound of coal, this means about 11 lbs. of coal per hour, or a little over one ton of coal in 200 hours. On this basis it becomes easy to determine the approximate loss to any confectionery plant due to uncovered pipes.

## Expansion Joints

Ever since metal pipes have been used, the care of expansion in long lines has been an important problem. Not so many years ago it was a very serious problem. All sorts of devices were employed, varying all the way from swing and sliding joints to bellows-type expanders. Although all of these devices may be more or less successful, depending upon conditions, the method that is most popular today is the liberal use of pipe bends with Van Stone joints, provided space conditions permit.

Where expansion must be effected in a straight line where no loops or bends are practicable, the sliding joint or corrugated copper joints may be used. Of the two the corrugated type is preferable because it does not need packing, does not stick, does not require lubricant, and does not get out of alignment. By this I do not mean that ALL straight line expansion joints give trouble. The best ones do not give trouble. The trick is, therefore, to pick the BEST ones. The bellows-type is very often objectionable because if made of copper or alloy it will not carry steam of as high tem-

perature as will a steel or iron pipe bend. Also, care must be exercised in the selection of the bellows-type expansion joint lest constant expansion and contraction may cause cracking in the corrugations. Before making a selection the advice of the manufacturer should be sought. All details as regards kind of service, external and internal temperatures, length of pipe, size of pipe, etc., should be given so that the manufacturer can advise intelligently.

## How Much Lubricant?

The flywheel test is the best one I know of for determining the proper quantity of oil to use in a steam engine. The test is very simple. Just pull out your watch and take the time required for the engine to come to a stop after shutting off the steam. The longer the stopping time the better.

It is plain that if a flywheel weighs, say, 2,000 lbs., it has a definite amount of energy stored in it when running at normal speed. Therefore, when steam is suddenly shut off, an equal amount of energy is dissipated every time the engine stops. With all conditions the same, then, an exactly identical length of time will be consumed in stopping every time the throttle is closed. By noting the stopping time every night and by altering the quantity of lubricant fed to the engine every day, the proper amount is in time determined.

The important thing is that external conditions must be the same every time the stop test is made. If the engine drives a belted machine, it is therefore best to throw off the belt and take the stopping time with the engine running unloaded. Under that condition longer time is consumed in coming to a stop and comparison of stopping times is made easier. In other words, the test is more delicate.

## Water or Air Cooling

Engineers are sometimes asked and are unable to answer why condensers are water cooled rather than air cooled. It is argued that "air finally must absorb the heat anyhow," so why not air cool the condenser in the first place?

It is true that "air finally absorbs the heat anyhow," even in power plants, but the water must first be sprayed into the air in order that its radiating surface may be made as large as possible to bring the temperature of the water down to the proper point again, and what is more important, the temperature of the water

*(Continued on page 53)*



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Kindly mention this insert when writing the  
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The following manufacturers of candy and chocolate machinery and factory equipment invite the special attention and consideration of candy factory executives to their respective sales messages presented in the advertising pages of this issue:

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STURTEVANT COMPANY, B. F., W. L. FLEISHER & CO.....	41
VACUUM CANDY MACHINERY CO.....	42

To the best of our knowledge the products advertised in THE CANDY MANUFACTURER have sufficient merit to warrant the serious consideration of our readers: we will appreciate any information to the contrary. We stand willing and ready to assist our subscribers in any possible and reasonable way in connecting with reliable sources of supply or in obtaining redress in any unfair or unsatisfactory transaction with our advertisers, though we assume no obligation in accepting the advertising.

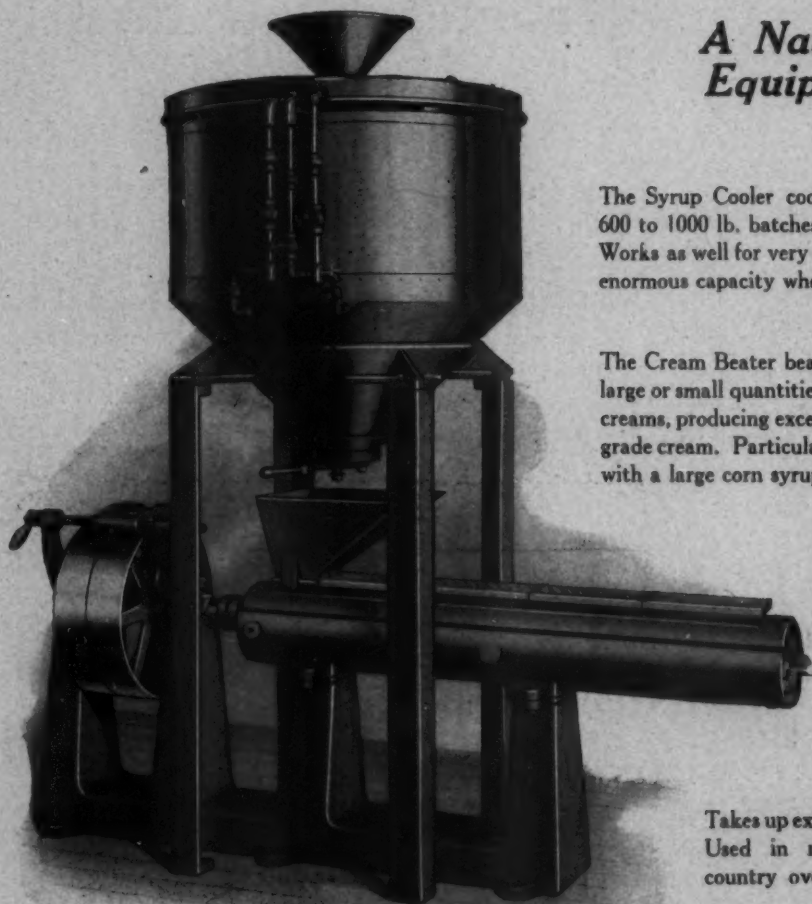
Therefore, when all other things are equal, kindly give preference to the advertisers in THE CANDY MANUFACTURER. If you do not find just the item of equipment or supplies you are looking for, remember you have free access to our Buyers' Directory files.

**THE CANDY MANUFACTURER PUB. CO.**

30 North La Salle Street, Chicago

# Syrup Cooler and Cream Beater

## *A National Equipment*



The Syrup Cooler cools, ready for beating, 600 to 1000 lb. batches, in 18 to 25 minutes. Works as well for very small batches, yet has enormous capacity when required.

The Cream Beater beats, with equal facility, large or small quantities of bonbon or dipping creams, producing exceptionally smooth, high grade cream. Particularly efficient for creams with a large corn syrup content.

Takes up exceptionally small space.  
Used in modern factories the country over.

*Write for illustrated pamphlet.*

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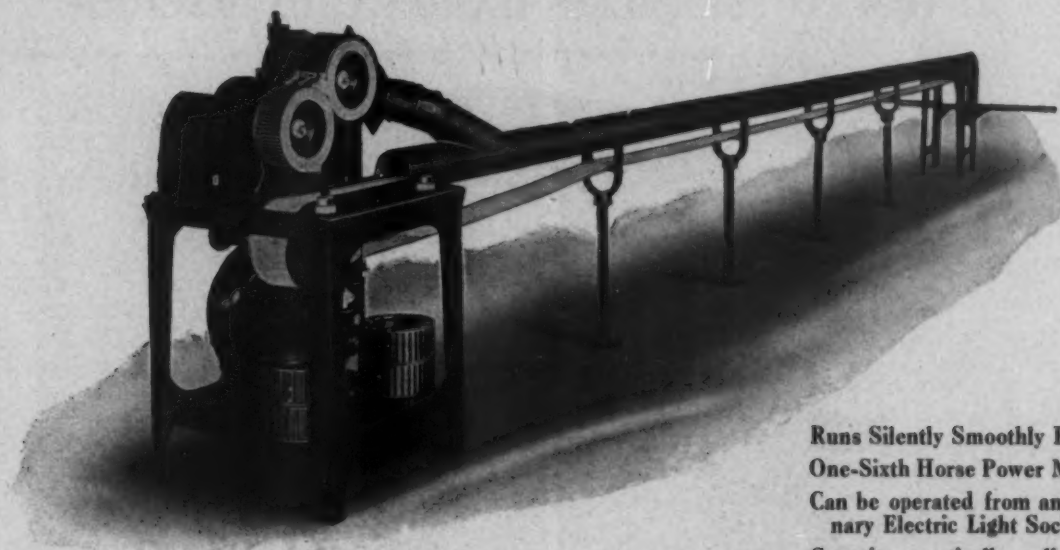
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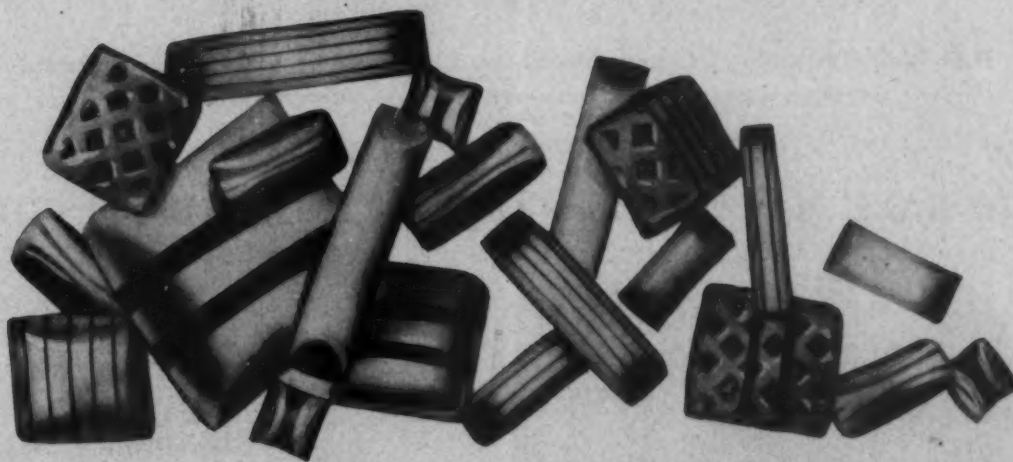
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Runs Silently Smoothly Easily.  
One-Sixth Horse Power Motor.  
Can be operated from an ordinary Electric Light Socket.  
Capacity practically unlimited.

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Pillows, Soft Center and Satin Finish Goods, Kisses, Chips, Waffles, etc.



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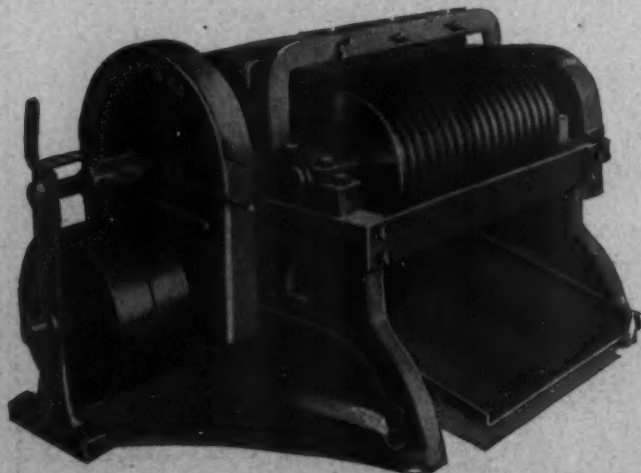


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**HEADQUARTERS  
FOR CANDY  
MACHINERY,  
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SINCE 1864**

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*"If it's listed with Mills it's a success"*

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Just as Edison put electricity to work and Watt put steam to work, so B. F. Sturtevant, sixty years ago, made the first "blower," thus harnessing Air to the service of mankind.

Pioneers in the design and manufacture of air-moving apparatus, the Sturtevant Co. maintains an extensive research and laboratory service for the continual development and improvement of various systems wherein air is put to work.

When designing air-conditioning systems, the W. L. Fleisher Co. has all the vast experience and knowledge of the B. F. Sturtevant Co. upon which to draw.

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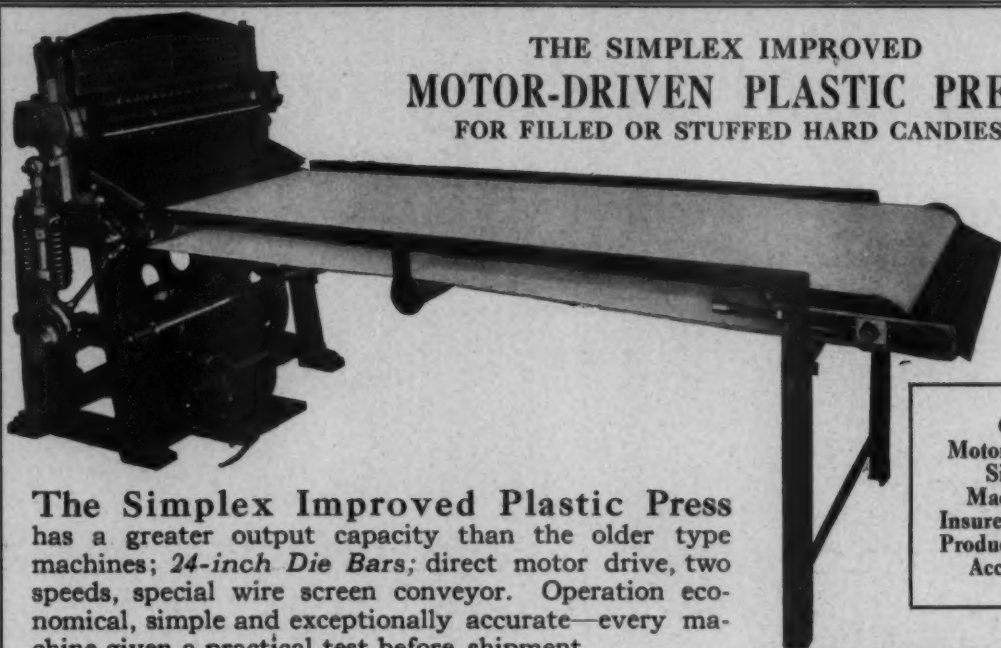
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## THE SIMPLEX IMPROVED MOTOR-DRIVEN PLASTIC PRESS FOR FILLED OR STUFFED HARD CANDIES

Our  
Motor-Driven  
Sizing  
Machines  
Insure Greater  
Production and  
Accuracy

The Simplex Improved Plastic Press has a greater output capacity than the older type machines; 24-inch Die Bars; direct motor drive, two speeds, special wire screen conveyor. Operation economical, simple and exceptionally accurate—every machine given a practical test before shipment.

*An assortment of popular dies included with every press. No extra charge.*

## Simplex Vacuum Cooker

Cooks Straight Sugar (Refined or Raw)  
Perfectly Cooks

ANY PERCENTAGE OF CORN SYRUP

Makes a clearer, a drier and more lustrous satin finish candy.

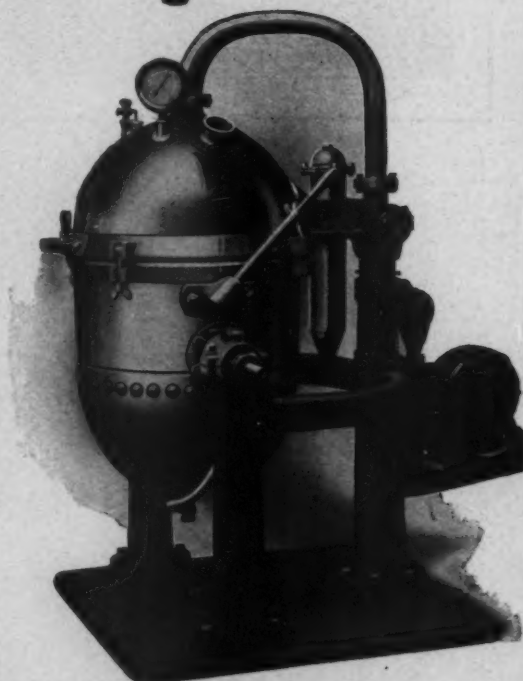
Costs Less to Cook a Batch—Less Fuel, More Vacuum

Capacity Simplex Steam Vacuum, 5,000 lbs. per Day  
(With extra melting kettle)

ALSO

## Simplex Gas Vacuum Cooker

3,400 pounds per day, guaranteed

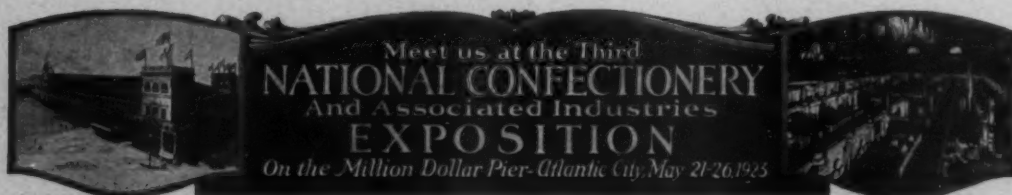


SIMPLEX STEAM VACUUM COOKER  
(Process Pat. June 30, 1914)

## VACUUM CANDY MACHINERY COMPANY

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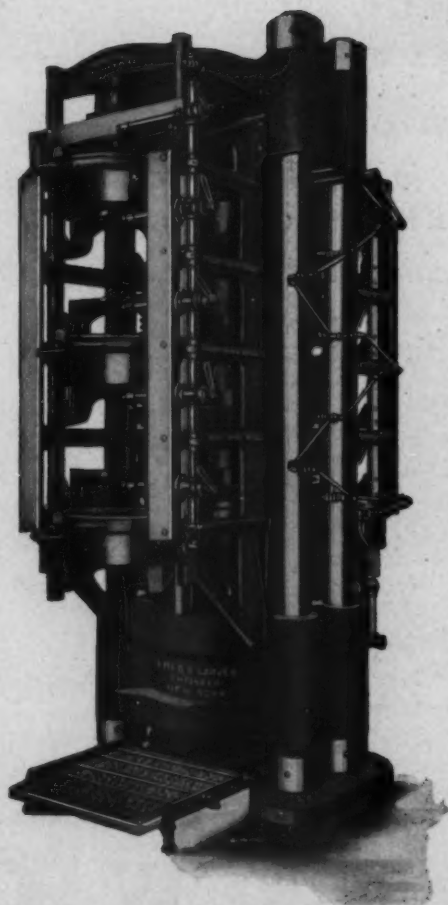
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*All of these (and certain other features of our machines) are covered by Patents, Issued, Allowed and Pending.*

*This gives to us the exclusive right to make, use and sell presses so equipped.*

*We sell these presses at fair prices to our customers and to them only goes the right to use such machines.*

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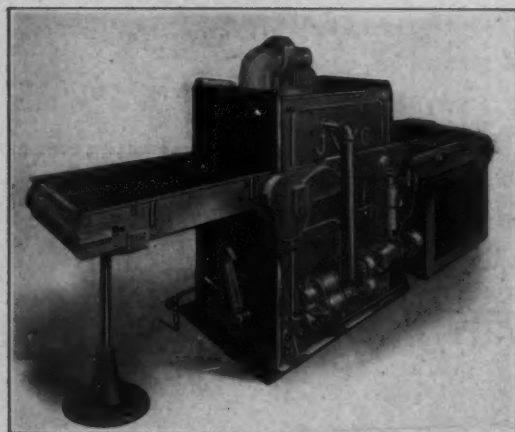
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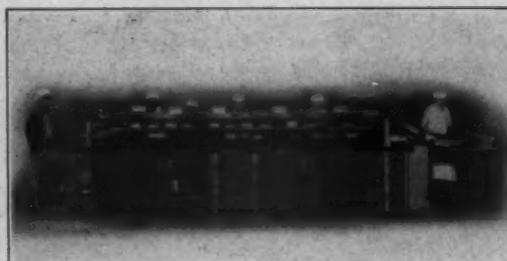
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**ELIMINATES PAPER PLAQUES**

*The Chocolate Coating Machine unit the candy industry has been*



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**Greer Drying, Conveying and Packing Machine**

This machine places before your packers 200 plaques of perfectly dry goods each hour—a steady stream of finished goods direct from your Coater or Enrober.

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WE GIVE AN ABSOLUTE GUARANTEE THAT OUR MACHINE

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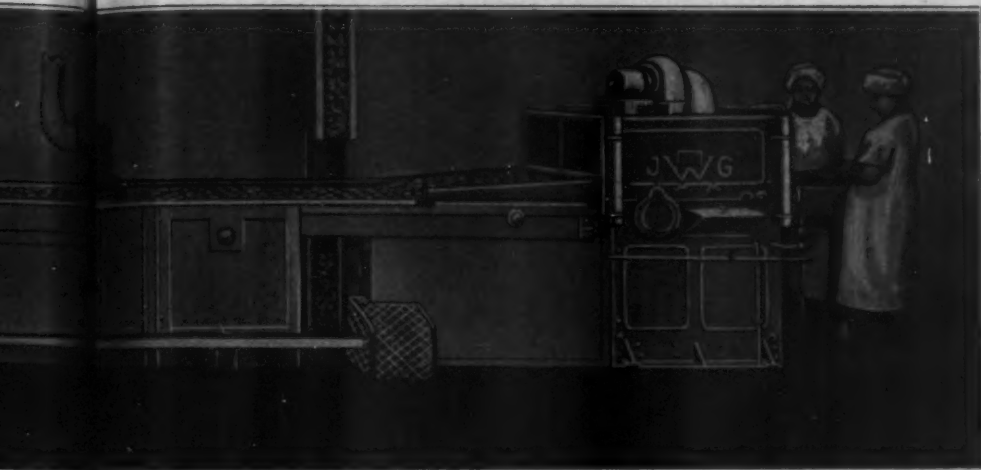
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Manufacturers of Confectionery Machinery





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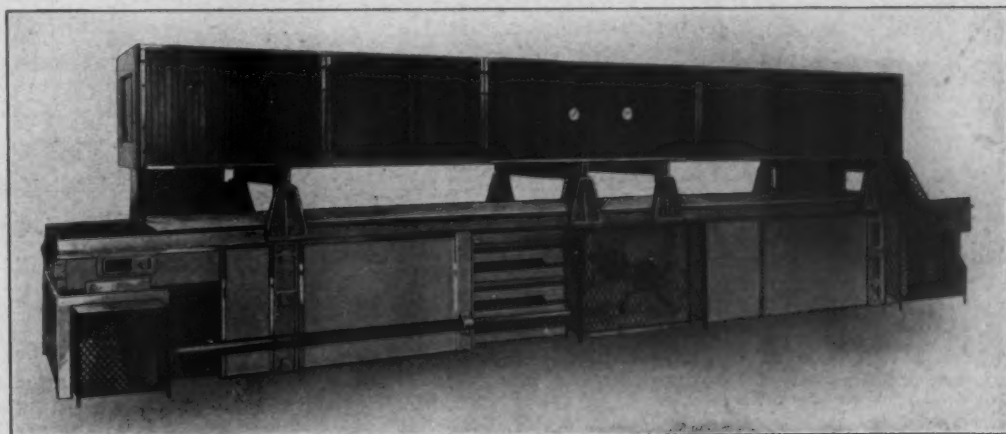
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The Greer Chocolate Bar and Ten-Pound Cake Machine showing bunker and machine complete  
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OUR MACHINE DOES NOT INFRINGE ANY EXISTING PATENT

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Issue of May, 1923

(45)

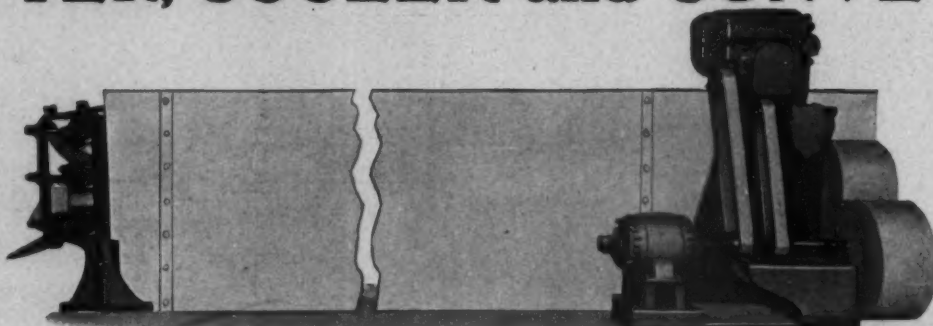
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*Let us send you full information and net prices on*

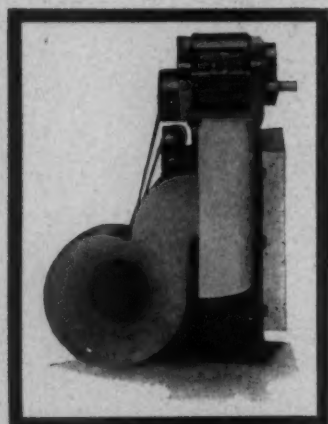
# The BRACH

## CUTTER, COOLER and CONVEYOR

The Brach Continuous Cutter cuts pieces in sizes varying from a tiny baby kiss to pieces one and one-half inches square—without ANY CHANGE OF MACHINERY.



I can furnish the BRACH Cooler and Conveyor separate—or connected to the BRACH Continuous worm gear drive Cutter, with a one horsepower motor, as illustrated—ready for operation.



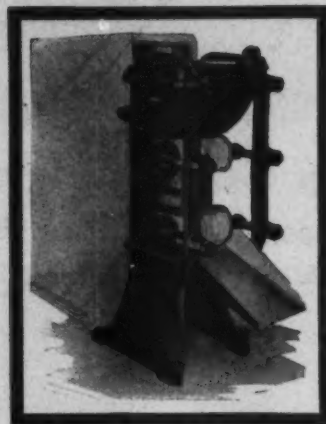
"Feed End" of Brach Continuous Cutter fitted on Cooler and Conveyor, showing blower of Cooler and Conveyor.

For the keen Business Man the best is none to good—when you install the

### Brach Hard Candy Equipment

you can be assured you have the best—backed up by our broad

### GUARANTEE



The "Delivery End" of the Brach Cooler and Conveyor—note the three belts which operate at different speeds to permit candy to cool thoroughly.

## The GREATEST OUTPUT in the SMALLEST Space

The BRACH CONTINUOUS CUTTER comes in two styles, the belt drive model and the worm gear drive model—both very efficient and highly productive, with a capacity of four thousand pounds of candy per day (some of our customers have gone us one better and claim to have turned out seven thousand pounds in a 10-hour day). If desired without the Cooling attachment, it comes mounted on a firm iron stand, or can be set right on your working table.

The BRACH COOLER AND CONVEYOR is but 17 lineal feet in length, yet gives the candy a travel of approximately 525 lineal feet when used with the Brach Cutter, which cuts the candy off completely. The top conveyor belt runs five times slower than the knives on the cutter, the next belt ten times slower and lower belt twenty times slower, which gives this remarkable cooling capacity against goods cut with a web which would necessitate the belts running slightly faster than the cutting knives.



The New Way (The Brach Way)—Contented Labor, minimum space, maximum output.

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The Candy Manufacturer

Issue of May, 1923

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That Are Proven Successes—Let Us Convince YOU!

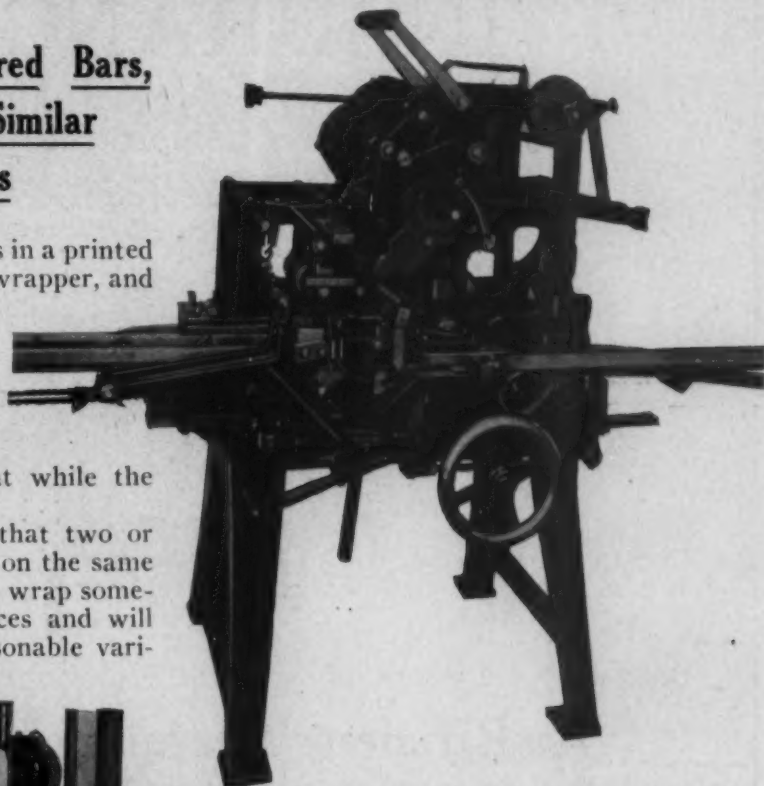
## For Chocolate Covered Bars, Peanut Bars and Similar Shaped Goods

a machine to wrap bar goods in a printed glassine, wax paper or foil wrapper, and register the printing.

The printed paper or foil is fed from a roll and cut off to the required length of the sheet. The registration is adjusted when necessary by the attendant while the machine is in operation.

It can be equipped so that two or more sizes can be wrapped on the same machine. The machine will wrap somewhat irregular shaped pieces and will accommodate itself to reasonable variations in dimensions.

The feed is by means of chain conveyor and discharge by belt conveyor.



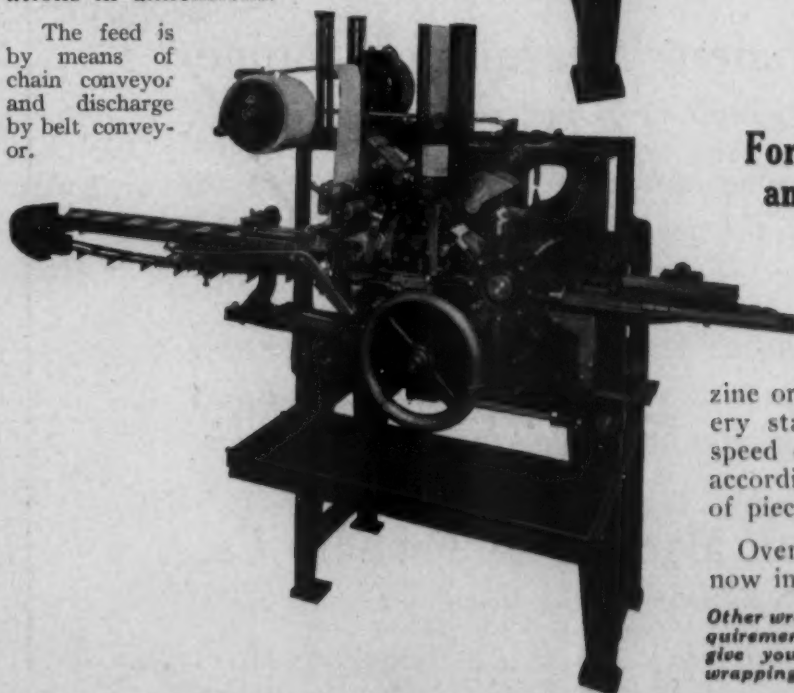
## **For Small Confections and Other Products**

Wraps in foil, waxed or glassine paper and bands, sealing the bands.

Equipped with magazine or conveyor feed and delivery stacker and operating at a speed of 70 to 110 per minute, according to shape and condition of pieces to be wrapped.

Over 50 of this type machine now in use.

*Other wrapping machines for different requirements. Send us samples and let us give you full particulars in regard to wrapping them.*



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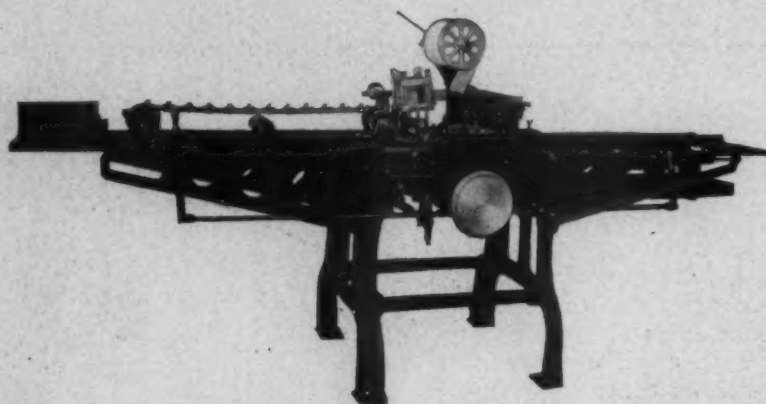
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## An Efficient Wrapping Machine

Producing a large and perfect output.

For wrapping and heat sealing packages in waxed paper, printed wrappers, glassine paper or tin foil.

*Please send us a sample of your package and permit our Service Department to estimate on an equipment best suited to meet your needs.*

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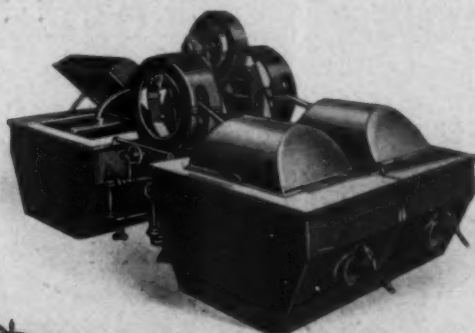
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A complete line of chocolate machinery. C<sup>o</sup>coa Mills, Roller Refiners, Conche Machines, Hydraulic Presses, Melangeurs, Cooling Plants, Sugar Mills, etc. etc.



Triple Mills With French Burr Stones



Conche. This type with water jacket, and granite bed stones and rollers.



Five Roller Refiners, of medium and large capacity.

ELITE Machines are of a very high class of workmanship and material. In detail of design the ELITE Machine is distinctly superior. Among improvements may be mentioned the adoption of roller bearings and ring oiler bearings.

*We invite your inquiry*

Where ELITE Chocolate Machinery is made  
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The builders of the line of equipment of which the  
HAVE HAD A COMBINED EXPERIENCE OF  
largest and best known equipment concerns in the  
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MADE IN SPRINGFIELD, MASS.

**"UNIVERSAL" MARSHMALLOW BEATER**

50 Gallon Capacity

*Get Our Prices and Full Pa*

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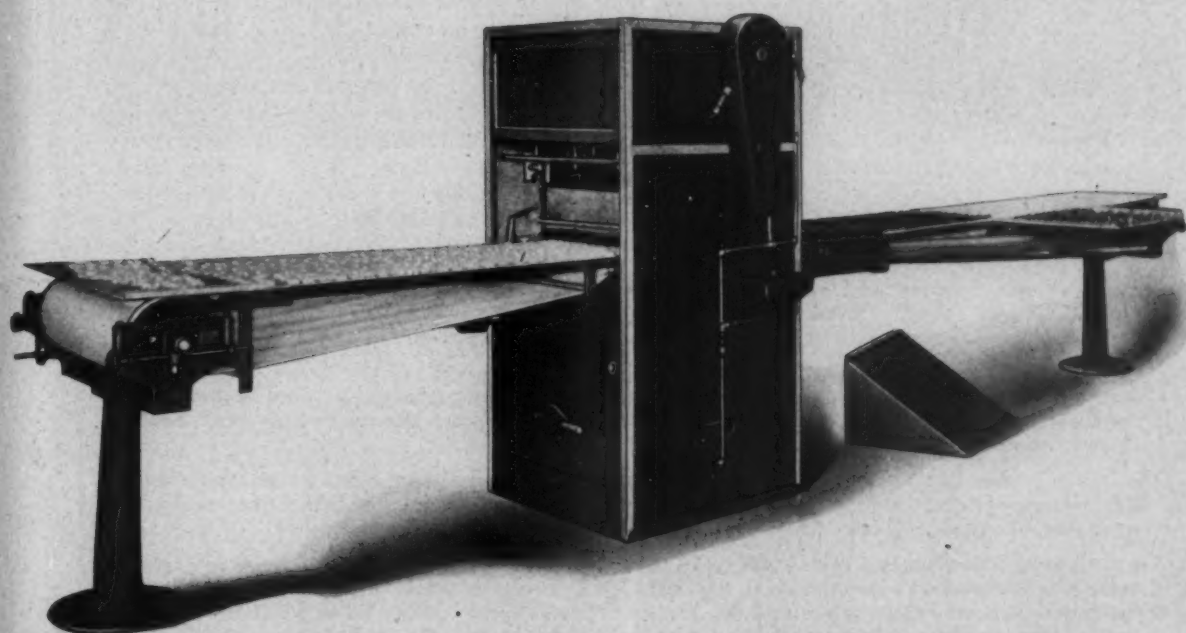
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Authorized Sol  
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which the two pieces illustrated are splendid examples,  
OF OVER 60 YEARS, with one of the  
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Built in 2 Sizes Over 50 per cent Greater Capacity

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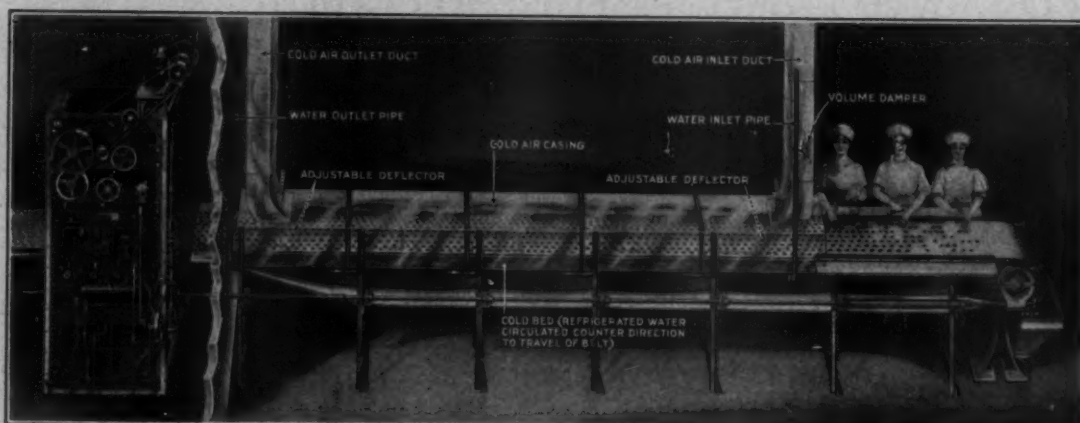
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Patents Pending

## Something You Should Know

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THE ANSWER IS OBVIOUS—The practical, experienced, production manager has learned the value of applied engineering knowledge. As an example, he now knows that for the same rise in temperature one gallon of refrigerated water will take up as much heat as two hundred cubic feet of refrigerated air.

He knows that in Chilling Chocolate goods smaller crystals of the fat are formed when the cooling is rapid, while in slow cooling larger crystals are formed and the fracture consequently becomes dull and grayish.

Having knowledge of such well known principles it was just plain common sense to apply them practically as we have done with the COLDBED Table, and as a result the chocolates by this method show a finer texture and the centers, being properly chilled throughout, are in the best possible condition for immediate packing. And (this is important to your pocketbook)—

1. The COLDBED Tables are sold at a very reasonable price. Our customers say we do not ask enough for them.
2. They are great money savers. No girl at the feed end of the table. The goods are not handled on the COLDBED until they reach the packer.
3. The scrap and waste is minimized. The goods are immediately set after leaving the enrober and hence there are no feather edges.

We will serve you wherever you are. Write for literature and complete information.

Also manufacturers of  
"The Chillblast" Air Conditioner, Cooler and Dehumidifier,  
The Bents Drying System for Starch Rooms  
and

The Bents Air Conditioning Apparatus for Maintaining Uniform Atmospheric  
Conditions in Rooms or Factories.

## BENTZ ENGINEERING CORPORATION

Main Office: 140 Cedar St., New York

Factory: 661 Frelinghuysen Ave., Newark, N. J.







## Points for the Factory Engineer

(Continued from page 36)

is often brought to a lower point than the temperature of the air. Much depends upon the humidity of the atmosphere.

Air is not so good for cooling "intense heat" as is water. That is a well-known engineering fact. Water is a better conductor of heat. Put your hand in air that has a temperature of 32 degrees Fahrenheit and it won't feel so very cold. Then put your hand in water of the same temperature and it will suddenly feel very cold. Why? Because water is the better conductor.

### Boiler Explosions

In general, the water tube boiler is safer than the fire tube boiler because of the fact that the former does not store so much water. The late Dr. Robert H. Thurston, Dean of Sibley College, Cornell University, figured that in a plain cylindrical boiler under 100 lbs. steam pressure enough energy is stored to throw the boiler to a height of over three and one-half miles in case of an explosion.

This is because hot water contains so much energy and because there is so much water in cylindrical boilers. He said: "A cubic foot of heated water under a pressure of from 60 to 70 pounds per square inch has about the same energy as one pound of gunpowder." This is one of the reasons why the water tube boiler is so often given preference to the fire tube boiler.

Fire tube boilers are generally large in diameter. The greater the diameter the greater must be the thickness of the metal to withstand the given pressure, and consequently the greater the weight of steel necessary and the greater the cost. The water tube boiler again has the advantage in that the drums of water tube boilers seldom exceed 48 inches in diameter, hence the plate thickness is never excessive.

The tubes of the water tube boiler always come in contact with the most intense heat. However, since these tubes are comparatively small in diameter and of great strength, they have a high factor of safety, much higher than the usual factor of safety of a fire tube boiler, the thick shell of which is exposed to the most intense heat.

Also, in the water tube boiler there are no compressive stresses whatever. Pressures always act from within both in the drums and in the tubes, consequently all metal is in tension. In the fire tube boiler the tubes are in compression and are always liable to collapse, especially when they become thin or when made in large diameters.

While it is true that water tube boilers sometimes explode, such explosions are almost invariably less dangerous than fire tube boiler explosions. Water tube boiler explosions seldom occur due to weak drums, because the drums are well protected from intense heat. If there is any breaking or bursting at all it is usually a tube, and tube failures are seldom serious.

## NEW STEAM BOILERS DOUBLE EFFICIENCY

Engineers in America are taking great interest in the sensational development of very high pressure steam boilers in Sweden. This apparatus instead of operating at three or four hundred pounds as a maximum, which is usually regarded as the greatest pressure for safe practice, is making steam at nine hundred pounds regularly. And modified designs which promise to be entirely satisfactory at 1,500 pounds per square inch, or one hundred times atmospheric pressure, have been prepared.

By increasing steam pressure in this fashion the boiler plant will furnish its power to the engine under conditions that will increase the efficiency of the engine by sixty to one hundred per cent, depending upon the type of equipment. Such an increase realized in many steam power plants would be a big factor in these days of high fuel prices.

This new steam boiler has several novel features, among the most novel of which is the generation of steam in rotating boiler tubes. The rotation of the tubes keeps all sides of the tube wet with water and tends to bring the steam bubbles all to the center of the tube, so that a great deal more water can be evaporated than under ordinary conditions. It is claimed that sixty pounds of water per square foot of tube surface is evaporated and in some cases a hundred pounds per hour is possible. This is several times the maximum rate of steam and in the most efficient American boilers.

The success achieved in operating this equipment for over a year at Gothenburg, Sweden, indicates that American engineers will soon be trying out similar equipment in the United States.—*Science Service.*

### A Task

To be honest, to be kind; to earn a little and to spend a little less; to make upon the whole a family happier for his presence; to renounce when that shall be necessary and not to be embittered; to keep a few friends, but these without capitulation; above all, on the same grim condition, to keep friends with himself, here is a task for all that man has of fortitude and delicacy.—*Robert Louis Stevenson.*

The mintage of wisdom is to know that rest is rust, and that real life is in love, laughter and work.—*Elbert Hubbard.*

The day returns and brings us the petty round of irritating concerns and duties. Help us to play the man, help us to perform them with laughter and kind faces; let cheerfulness abound with industry. Give us to go blithely on our business all this day, bring us to our resting beds weary and content and undishonored, and grant us in the end the gift of sleep. Amen.—*Robert Louis Stevenson.*



# Homogenizing and Its Application to the Candy Industry

By P. M. Travis, B. Sc.

**L**IKE all other industries in which the Homogenizer has been introduced, the first questions usually asked are: What is Homogenizing? What does it do? At the beginning of this article, therefore, it is thought advisable to give a definition of Homogenizing.

## What Is Homogenizing?

A homogenizer is a machine working under high pressure, which makes it possible to mix ordinarily unmixable fluids or semi-fluids so thoroughly that they will not separate after long standing. The machine operates under a pressure as a rule of about 2,200 pounds per square inch, but has a variable range up to approximately 3,500 pounds.

It forces under high pressure liquids through such fine openings that the particles are broken up into microscopic size and can no longer rise or sink in their medium. They make what is known as a colloidal solution. So that the reader will not have to stretch his imagination in figuring out the action of a homogenizer, let us give a brief description of such a machine so that he may picture in his own mind what it looks like.

## Construction of the Homogenizer

We have previously stated that a homogenizer is a machine that makes a homogeneous mass and that the emulsion consists of the raw materials that are passed through the homogenizer. The homogenizer consists of a heavy iron base, on which is mounted a high pressure pump bearing from three to eight compression cylinders connected by means of a series of valves to a lead, which in turn is connected with a stationary three or four step emulsifying socket in which fits a three or four step rotating head. It has been found that the best results are obtained by using a rotating head. The emulsion is not dependent solely upon a direct impinging force alone to break up the products, but instead upon the rolling and grinding of it between a revolving head and outer chamber in combination with high pressure.

The result is comparable to that accomplished by the apothecary when grinding with a mortar and pestle. If the pestle is given a rotating motion the grinding effect is immediate and positive, whereas, a direct impinging blow cannot give the desired grinding and mixing effect.

On this rotating head usually is a hand wheel or adjustment lever, which forces the rotating homogenizing spindle into a stationary socket,

as this rotating spindle is forced into the socket the pressure increases. The pressure gauge is mounted upon a lead, which runs into the homogenizing head, so that the pressure at which the substance is being homogenized can be observed. It is in the homogenizing head that the mission of the homogenizer is fulfilled.

Mixtures or combinations of oils, fats and other liquids which are to be homogenized are placed into an agitating tank and heat applied if necessary. In this tank the product is constantly agitated at any temperature desired and during this time the homogenizing pumps are pumping the liquids from the agitating tank through the homogenizing head. In other words, the process is continuous. The liquid going from the agitating tank through the homogenizer is then forced by the pressure up through into the cooling or storage tank. The homogenizer is usually operated by a motor, which is attached to the rear end of the machine.

The broad application of homogenization has created during the past few years a demand for a machine that will produce a more perfectly homogenized product at a substantially lower pressure than ordinarily employed and a machine capable of handling a greater variety of mixes and materials. Since the introduction of the rotating homogenizing head all of this has been accomplished. Far more perfect results can be produced by using this type of machine than has heretofore been possible, and clogging is thereby made impossible because of the rotating step cone; there is no actual contact between the rotating spindle and the stationary sprocket, but the space between them is so small that the product is ground, rolled and crushed while passing over the series of steps and cones until the fat globules and other materials are perfectly homogenized.

The homogenizing machines usually vary in capacity, according to sizes, from about 25 gallons per hour output to 800 gallons per hour, according to the requirements in each case.

## The Homogenizer in the Dairy and Ice Cream Industries

The first uses of the homogenizer were confined to the dairy industry and date back to about 1909, when they were first introduced for the homogenization of dairy products, such, for example, as evaporated milk and for all uses where they did not wish the cream or fat to separate. Therefore, its purpose was just the reverse of that of a cream separator. Instead of separating the fat from the milk, it was possible with the homogenizer to incorporate fat



into the milk, thereby making any percentage of cream desired up to as high as 40 per cent, or what is known as heavy cream.

After the homogenizer had worked successfully in this field for a few years it was next introduced into the ice cream industry, where its use obviously was to incorporate the fat, milk solids, etc., into a homogeneous mass. This brought about a big improvement in the manufacture of ice cream. It was found by working with this machine that when frozen the product was more uniform, besides being of a fine texture, and its keeping qualities were considerably improved.

These improvements in the keeping properties have developed in all of the industries in which the homogenizer has been introduced and undoubtedly is due to the high pressures used, which have more or less of a germicidal action and is superior to pasteurizing, but is usually used in connection with this in the dairy industry.

The practice of homogenizing was confined to the two above mentioned industries for a number of years and it is only comparatively recently that machines have been perfected capable of making perfect emulsions of oils, fats, etc., with water. It has, of course, thereupon opened up a very large field for homogenizers of the proper type.

#### **Also in Other Food Industries**

One after the other the homogenizer was found to apply to the following industries, after its development in the dairy and ice cream business:

1. For the manufacture of oleomargarine.
2. For the manufacture of emulsions of oils of uneven specific gravity with or without water.
3. For the manufacture of cod liver oil emulsions.
4. For the manufacture of staple emulsions of flavoring extracts.
5. For the manufacture of oil and water containing colors.
6. For the manufacture of liquid pharmaceutical preparations.
7. For the manufacture of toilet preparations containing essential or fatty oils, as well as cold creams.
8. For the manufacture of salad dressings.
9. For the manufacture of milk chocolate.
10. For the manufacture of liquid rubber compounds.
11. For the manufacture of floor, furniture and shoe polishes.
12. For the homogenizing of shortening, so as to get better distribution in baking and many other uses.

The above list is merely given to give the reader some idea as to the tremendous field in which the homogenizer has a calling.

#### **Homogenizing in the Baking Industry**

Consider for a moment the satisfactory results being obtained in the baking industry

whereby a far superior loaf of bread can now be made by use of the homogenizer, which breaks up the fat and other particles into microscopic size, every drop of which contains equal parts of malt, sugar, milk, shortening and water, insuring perfect distribution of these particles throughout the dough mass. Most progressive bakers realize the advantages of using emulsions of this kind in preparation of their bread products. It has also eliminated a great number of errors occurring through improper mixing and has eliminated what is known as the invisible loss, which occurs in many instances due to false weighings, and it has done away with the unsightly scale pans used to put the ingredients into the mix, besides giving a better texture, grain, crust and greater yield, and causing the bread to keep for a longer period of time.

This article is submitted with the idea that there may be considerable room for improvement in the manufacture of confectionery, and no doubt improvements could be brought about by the use of the homogenizer in the candy industry.

#### **Emulsifying Oil and Water**

As an example of the thoroughness of mixing by use of the homogenizer, let's take the case of an emulsion of oil and water. When such products can be mixed in proportion and made into a permanent emulsion, which will not separate, it should give the reader some idea as to the fineness into which these particles are broken under pressure.

It was found upon microscopic examination of a homogenized oil product that the oil globules are split to such a fine state of division that they have taken on what is known as the Brownian Movement. Brownian Movement, as scientists will tell you, is only possible when matter has been split up to such a fine state of division that it is no longer affected by gravity, and immediately proceeds to take on its own motion.

To give you some idea as to how small these particles must be in order to take on Brownian Motion, it is only necessary to take the actual microscopic measurements and incorporate them with our usual methods of measuring. These particles in order to take on Brownian Motion must be split up below 0.8 of a Mu. Now a Mu is one one-thousandth of a millimeter and there are twenty-five millimeters to one inch, therefore it is a mere matter of calculation for the reader to determine how small these particles actually are in order to take on Brownian Motion—less than 1/25000 of an inch. In a properly homogenized product separation never occurs and you will find Brownian Motion when examining under the microscope.

These particles are constantly in motion throughout the liquid and as it is heated their motion increases, while when it is chilled their motion is decreased. Therefore, each particle

has its own path of motion, it is not acted upon by gravity and separation is impossible.

The prime reason for beating or agitating the raw materials separately when making the final emulsion before any liquid was added was because it was then thought it would be impossible to make an oil and water mix, yet in the experiments conducted not only in the laboratory, but commercially, it has been shown to be wrong in so far as putting them into a state in which they will not separate is concerned, and it is primarily on this foundation that the great strides in connection with homogenizing have been taken.

*Being able to put fats, oils and water together with other ingredients and at the same time keep them from separating is the true secret of homogenizing in so far as the confectioner is concerned.*

#### **Dilutions**

Another important fact to know is that after these oil-water emulsions and fat-water emulsions have been made you are able to dilute them with other ingredients or water in almost any proportion and the mass still remains homogeneous. In other words, when these oil-water emulsions are poured into more water it simply dilutes like so much milk, which is a big advantage in connection with the concentration of the emulsified products.

This product has been divided into what is known as the colloidal state of matter and appears as such. To give some idea as to the advantages gained by splitting the particles up into such fine state, let's revert back to the dairy industry.

#### **It Tells in the Taste**

It has been found by taking light cream, say containing about 18 per cent of fat, after this product is homogenized the fat globules are split up to such a fine division that this cream appears like one containing 30 or 35 per cent of fat. In other words, it makes a light cream taste like a heavy cream. The reason for this is obvious, if the reader will stop and analyze what has been said heretofore.

You know, for example, that taste is merely a matter of surface contact with the tongue. Now, if we take this cream before it has been homogenized and place it under the microscope we will find large fat globules suspended in the milk. These fat globules, when the product is homogenized, are split so that each globule is broken into several hundred. Therefore, when this same cream is tasted after homogenization, instead of a few hundred fat globules coming into contact with the tongue there are thousands. Do not get the idea from this that the fat content has been actually increased, because you cannot get something from nothing. It is merely that these globules have been split up so that there are now present, say, one thousand fat globules where there were formerly one hundred, and therefore gives the cream a much richer flavor.

It does not require much imagination for the confectioner to realize the value of this in connection with his business. If the particles of raw materials can be split up to this fine degree it is natural to suppose that, for example, milk chocolate with a definite fat content, if these particles had been homogenized it would appear much richer, and furthermore the fat is very readily assimilated in the digestive system, as these particles are in such a fine state of division.

By way of suggestion as to the improvements that may be brought about in the manufacture of candy and chocolate through the uses of the homogenizer, let's consider, for example, the cocoa fats which sometimes break through the chocolate coatings. In the cases of chocolate creams you have noticed often that candy which has stood in the window for some period of time or that which has been exposed to the light and heat takes on a grayish cast, which is entirely an optical effect, and while it does not depreciate the candy to any great extent, it undoubtedly has a psychological effect on the purchaser. He would prefer to buy a candy without this grayish cast. While extensive experiments with the homogenizer along this line have not, to the writer's knowledge, been made, I believe that one of the future effects of homogenizing will be to counteract the tendency of chocolate coatings to turn gray.

One of the advantages which also appears to be obvious is that by improving these coatings through getting a uniform texture, for example in the case of centers, there will be less drying out and hardening of the candy, which will bring about considerable saving. There is no doubt but what it would readily improve the product and prolong the time during which a product would be salable.

Many interesting experiments are constantly being conducted in the laboratory on the improvement of various products by homogenization, and it is hoped that the confectioners will not hesitate to submit their problems which in some instances may be solved merely by homogenizing, and while it is not claimed that the homogenizer will revolutionize the candy industry, it can be justly said that it will improve the products and is a step far in advance for the industry.

It seems highly probable that great savings can be brought about by properly homogenizing the raw materials entering into the manufacture of confectionery. It is substantially true because of the highly satisfactory results that are obtained with homogenized products from the simplest agitating and beating; and it is hoped that as time goes on we will be in position to publish some interesting data in connection with homogenizing for the confectioner.

Wanted: Experienced forelady to take charge of chocolate dipping department. Hutchinson Candy Company, Des Moines, Iowa.

# Near Candy

*A forceful and frank statement of a condition which is a menace to our industry. What are we going to do about it?*

**by J. H. Strayer**

*Secretary and General Manager, Gillen & Boney, Lincoln, Neb.*

**N**O other industry is afflicted in a like manner with the candy industry. At least ninety-eight per cent of our manufacturers are using all of their energy manufacturing candy that will appeal to the public, and create a taste for candy. While the other two per cent are cheapening their goods in every possible way by marketing products that are destroying the taste for candy faster than it is being acquired by the public through the efforts of the legitimate manufacturers.

What is the matter with our industry? Are we covering up so many misdeeds of our own that we are afraid to investigate this class of merchandise, and see what it would disclose? There is no question that certain factories do not have an ounce of flavoring extract in their plant. For coating they use cheap cocoa, and stearines; for almonds, they use peach stones; for cocoanut, they use corn flakes, and yet we will allow their goods to be labelled and sold as pure goods. There are a number of items that were popular a few years ago that are now practically off the market. For instance, caramels, which was at one time one of the most popular items of candy. A number of manufacturers cheapened their product and used substitutes for cream and other ingredients, which has caused the sale of caramels to be brought to a point almost negligible. We constantly hear among the manufacturers the question, "What has become of the cocoanut candy business?" The answer is simple. "Substitutes killed it." Now worst of all, we are confronted as never before with substitutes for coating, and if this is allowed to continue, the result will be no different than we have experienced in caramels, cocoanut work, etc. Our members spend months, and some times years, educating a merchant to handle quality goods on which he builds a profitable business. All at once, through a change of management, or some other cause, this merchant decides he can sell "imitation" candy for the same price he has been

getting for pure goods. The result is the legitimate manufacturer loses his business, and the retailer suffers. We jolly ourselves into believing that this trade will go to some nearby store that is handling first class merchandise, and a part of it will, but a certain per cent of his trade will have their taste for candy destroyed, before they discover that their regular dealer is giving them something which he regards as "just as good."

Because the unscrupulous candy manufacturers were allowed to carry on these tactics a generation ago, before we had pure food laws and the machinery to enforce them, is no reason why the legitimate candy manufacturers of today should allow the consumer's taste for candy to be destroyed, and the censure heaped upon the industry as a whole. Is it not time we have some of these impure, mislabelled items analyzed and force the manufacturers using substitutes and misbranding their products to produce goods that is candy, or get out of the business altogether?

It is a thankless and discouraging job to build up among the consuming public a desire for candy, only to have this taste destroyed by a few unscrupulous manufacturers. What will you do about it? Get right yourself, and then make the other fellow do likewise.

Sooner or later the "near candy" manufacturers are going to be confronted with the fact that legislation will be passed and we will be compelled to print the ingredients or the formulae on the label—and then what?

Bear in mind we need not go outside of our own industry to handle this situation. Our industry is composed largely of men whose business integrity is above reproach and no organization has more efficient officers than those directing the work of the candy business. These, together with the fact we have available standards of purity would make it an easy matter to rectify these conditions as has been done in several other lines of business.—*Midland News.*

The day returns and brings us the petty round of irritating concerns and duties. Help us to play the man, help us to perform them with laughter and kind faces; let cheerfulness abound with industry. Give us to go blithely on our business all this day, bring us to our resting beds weary and content and undishonored, and grant us in the end the gift of sleep. Amen.—*Robert Louis Stevenson.*

One great, strong, unselfish soul in every community would actually redeem the world.—*Elbert Hubbard.*

## A Pleasant Tax

"Did you ever know of a tax men didn't kick about?"

"Sure, there's the kitty in a poker game. It is fair, equitable and reliable and at the same time business is so brisk no one notices the expense."

## Candy Consumption in Canada Increasing

The per capita consumption of candy in Canada is increasing, according to reports submitted at the annual convention of the confectionery, biscuit and chocolate industries of Canada assembled at Toronto this month. Consumption of confectionery in Canada in 1918 was \$2.44; in 1919, \$3.13, and in 1920, \$3.65. While the 1921 and 1922 figures have not yet been published, information already available for these two years indicates a considerable further increase.

An analysis of the present trade conditions with a view to developing markets and building business occupied the attention of the delegates.

Edmund Littler, of Montreal, said that the increased price of sugar had made a considerable effect on the industry. The excise tax of five per cent had also been a big factor. It was hoped that this would be taken off, otherwise another advance in the price of candy was probable.



# 5th Annual Convention of The Confectionery, Biscuit and Chocolate Industries of Canada

The fifth annual convention of the Confectionery, Biscuit and Chocolate Industries of Canada was held in Toronto the first week in May. Advertising was one of the main subjects of discussion.

"Perhaps the best way of reaching the average consumer of candy is through newspapers. In this way the farms and smaller centers which most need stimulating can be reached," said R. P. Smith of William Neilson, Ltd., Toronto, in the course of an address on co-operating advertising. Mr. Smith declared that co-operative advertising was preferable to competitive advertising. He touched on the great sales stimulation which had followed co-operative advertising in many fields, mentioning prunes, raisins, paints and other commodities.

"There is scarcely an article of general consumption the sales of which cannot be enormously increased by properly concerted effort of this kind," he said. The consumption of candy, he pointed out, was below what might reasonably be expected without exceeding the normal, healthful limits. It was essential, he explained, that whatever was done in advertising should be connected and consistent. "Spasmodic efforts will not get us anywhere."

In the discussion which followed it was generally agreed that a "Candy Week" or "Candy

Day" was not desirable, the opinion being expressed that the reaction in such a case would be greater than the effect.

A committee was appointed to deliberate on a national advertising and publicity campaign and report to the membership. This committee consists of R. P. Smith, E. L. Buchanan, D. E. MacVannal and W. H. C. MacEachren.

Nelson J. King of Bradstreet's addressed the convention on the subject of credit problems. In conclusion, he remarked that Canadian merchants were to be congratulated for their record during the past year under difficult operating conditions.

Officers elected for the ensuing year were: President, Edmund Littler, Montreal; First Vice-President, Morden Neilson, Toronto; Second Vice-President, C. C. Wardrope, Winnipeg; Treasurer, Colin Currie, London; Secretary, C. J. Bodley, Toronto. The Executive Committee of the association will be composed of the following: W. Robertson, Toronto; C. W. Monaghan, Halifax; A. D. Ganong, St. Stephen, N. B.; F. O'Connor, Toronto; J. W. Bean, Woodstock; T. W. McFarland, London; James Ramsay, Vancouver; Harvey Shaw, Edmonton; V. McCormick, London; E. G. Robinson, Toronto; H. N. Cowan, Toronto, and Paul Vaillancourt, Montreal.

## New Cocoa and Chocolate Association

**A**T A recent gathering at the Hotel Pennsylvania, New York, of manufacturers of cocoa and chocolate a new Trade Association was formed. It is to be known as The Association of Cocoa and Chocolate Manufacturers of the United States and will have the following officers:

President—H. C. Gallagher, President, Walter Baker & Company, Ltd.

Vice-President—Wm. F. R. Murrie, President, Hershey Chocolate Company.

Treasurer—Wm. H. Watt, Vice-President, Hooton Cocoa Company.

The Executive Committee will consist of the President and Vice-President of the Association, together with:

B. K. Wilbur, Vice-President, H. O. Wilbur & Sons.

S. P. Goble, Vice-President, Rockwood & Company.

Louis Runkel, President, Runkel Brothers, Inc.

J. R. Nicholson, President, Beacon Chocolate Company.

W. K. Wallbridge, Vice-President, Peter Cailler Kohler Swiss Chocolates Company, Inc.

The appointment of a permanent Secretary is in the hands of the Executive Committee, and in the interim this office will be filled by W. K. Wallbridge.

It is understood that this Association is to consist strictly of only those firms whose principal business is the manufacture of both cocoa and chocolate.

The objects of the Association, as defined in its Constitution, shall be limited to the promotion of the interests of the chocolate trade in its relation to Governmental matters, transportation problems, and questions arising in connection with the growth, shipment and classification of raw material.

# THE PURCHASING DEPARTMENT

## II—Use of the Laboratory in Selecting and Caring for Raw Materials

The Sixth of a Series on Purchasing Confectioner's Supplies

by A. Adams Lund

(Continued from last issue)

Then comes the utilization of wholesome waste materials which occur in manufacture, of which "scrap" candy is perhaps the most important. The study of this subject merits a great deal of thought and the results to be attained in this direction are well worth any time which may be spent in research. Few manufacturers realize how large a percentage of their cost is devoted to waste material. The sugar refiners, accustomed as they are to cutting down overhead and working on close margins, may well serve as our example. For them nothing is lost. The empty bags are washed, the floors are swept and the resulting "sweet water" assays as high as three per cent sugar, which after thorough refining ultimately appears in our sugar bowls—clean, pure and white as the driven snow. While we are not in a position to subject our waste materials to the same processes of revivification, that portion of them which we can perform will result in economies of which we have so far not even dreamed.

### Profiting by the Inquest

**E**VEN that part of our materials which cannot be salvaged should serve as an object lesson to prevent a recurrence of the error or negligence which caused it. Theoretically, materials supervised under this system should not go bad before they are used. If it is a question of keeping a perishable too long, the stock man is responsible for overstocking. Otherwise the loss is due either to some inherent defect in the goods themselves, in which case the fault is with the supplier, or to the carelessness of some member of the working force in providing an avenue for infection or contamination. About two years ago the writer was furnished with a concrete example of the value of investigating the causes of deterioration and fixing the blame in the quarter responsible for it.

A consignment of barreled honey which had been held in storage for about a year commenced to show signs of deterioration. But it was not the kind of deterioration which might be expected under the circumstances.

It had not fermented, but taken on a peculiar flavor which could not under any stretch of the imagination be attributed to the natural deterioration of the honey. After several weeks' investigation, during which analyses were made

of the honey and pieces of the inside of the barrel, the laboratory reported that the barrels had previously been used for lard or some other form of animal stearine. Since it is against the law to refill fat barrels with materials intended for human consumption, the supplier agreed to make good, although, owing to the length of time the goods had been held, the manufacturer would have been unable to claim damages had the deterioration been due to any natural cause.

A convenient method of determining the comparative quality of a material and the length of time it has stood up under various conditions in the factory is to draw up a time chart to represent each lot of perishable material which enters the factory. In this system a card appears in the chemist's file for each lot which he has examined. As the size of the lot diminishes on subsequent inspections, note is made of the quantity remaining on hand and after each entry a brief description of the condition at that time. Thus:

### ARTICLE: PECAN HALVES. LOT No. 817

Date	Quality	Condition
11/3/21	20 bbls.	Fresh-cracked and damp, light amber color; good flavor; free from mould and animal matter. Spread to cure.
1/12/22	14 bbls.	Condition O. K.
3/7/22	61 bbls.	No change.
5/16/22	46 bbls.	Amber-colored. Otherwise O. K.
6/1/22	39 bbls.	Fairly dry. Recommended shipment to cold storage.

The cards are complete when the stockroom surrenders the inspection tags to the laboratory, signifying that the goods have been issued. (The return of these tags serves the further purpose of enabling the chemist to keep a check on the stockroom to see that the lots are issued in the sequence in which he desires them to be used.) Such a record on canned goods and other items where guarantees are given, to a great extent, simplifies the substantiation of claims and yet involves no other detail work than would ordinarily be required to record the results of each inspection.

So, as shown in this and the preceding installment of this article, from the moment the materials are received until they leave your factory in the form of finished goods the laboratory should control each step of their progress to insure purity, wholesomeness and uniformity of product.

# What's Your Problem?

*Any question pertaining to the manufacture of candy or to the ingredients which go into it, the factory equipment or any phase of candy factory management will be welcomed. If the answers are of interest to the trade as a whole they will appear on this page without reference to the name of the writer. Questions of confidential nature or of individual application will be handled direct by mail.*

*It is presumed that our readers will not confine themselves to requests for formulae but ask any information of the most general nature which they feel will be helpful to them in solving their manufacturing problems. Advancement comes through a more complete knowledge of the subjects involved and it is the hope of the publishers of THE CANDY MANUFACTURER that its readers will feel that this is the logical medium for the collection and dissemination of practical information relating to the manufacture of confectionery.*

*Once an answer is published it becomes public property. Read the answers whether they are in response to your questions or not and if you do not agree or if you feel we have missed the point write in and say so and let us have your comments on the problem in question. Discussion is one of the broad avenues to truth.—EDITOR.*

## Re Marshmallows

The basic percentage of the various ingredients of a healthy marshmallow is 60 per cent sugar, 40 per cent glucose, from 30 to 32 per cent raw water and from 2 to 3 per cent of gelatin, the percentage depending upon the quality used.

In order to prevent fermentation, it is necessary that 60 per cent of the total ingredients used represent sugar, the balance moisture. It is also necessary that the water used in marshmallow be absolutely free of bacteria and all utensils and the plant itself be in clean condition.

Where filtered river water is used or where the supply is secured from open reservoirs, the water should be boiled to prevent infection from this source. The glucose in a formula is figured as 50 per cent sugar or solids and 50 per cent water or moisture.

Their formula which is as follows shows the following analyses as to solids and water:

Solids	
3 lbs. gelatin	
60 lbs. sugar	
20 lbs. glucose	
1 lb. egg albumen	
Water	
20 lbs. glucose	
24 lbs. water	

This will show a total of 84 lbs. of solids and 44 lbs. of moisture, or 63 per cent solids and 37 per cent moisture.

This formula under ordinary conditions is absolutely safe from fermentation. By heating glucose, sugar and one-half of their water base to 190° F., and by using cold, sterilized water for soaking their gelatin, they will be absolutely free of any trouble unless contaminated with bacteria in their own plant.

They could very easily increase their water base to 32 lbs.

In analyzing their summer formula as above, it shows 79 lbs. of sugar, 45 of moisture, or 63 per cent solids and 37 per cent water. The consistency of this marshmallow is the same as their first formula. They could also increase the raw water base in their present formula up to 24 lbs.

The proper beating of a marshmallow is very important as to its keeping qualities. A single action beater

should be geared around 200 revolutions per minute and a double action beater from 140 to 160. If beater is properly geared, it is evident that all their troubles were due to their water supply, and they therefore should properly sterilize their water in warm weather by boiling the water for use in soaking the gelatin in advance of their needs.

## Re Cut Marshmallow.

(717) We would like some advice on the matter of cut slab marshmallow by the following formula:

3 lbs. gelatine (calf stock).
60 lbs. sugar.
40 lbs. glucose.
1 lb. egg albumen.
3 gal. water.

These marshmallows fermented in the hot weather of last summer. Late in the summer after the hot weather was practically over, we changed to this formula:

4 lbs. gelatine.
50 lbs. sugar.
50 lbs. glucose.
1½ oz. glycerine.
2½ gal. water.

We haven't had the opportunity of testing this for hot weather, and would like your advice as to the probability of the piece holding up. Also any advice which would be helpful in making cut marshmallow would be highly appreciated.

I think these people are using too much water, and it is very probable that they are using part of it to thin the batch just before they draw it out of the beater. This is almost sure to promote fermentation as the water so added does not thoroughly incorporate with the substance of the marshmallow, so producing a syrup of such low Beaumé that it readily ferments.

Advise them to put all the water in at the start and watch that they do not overbeat the batch. If they do beat too long and must thin down, they should use a syrup of half and half glucose or Nulomoline and sugar which shows not less than 38° B.

If the following recipe is adhered to exactly, they will have no trouble unless some condition prevails in



their factory which would require drastic measures to rectify.

Fifty pounds sugar, 12 lbs. water. Bring to a boil, and be sure all sugar is dissolved.

Pour over 4 lbs. gelatine (more or less according to strength), previously wet with 5 lbs. cold water. Stir until gelatine dissolves, then add 50 lbs. of corn syrup, and beat to desired consistency. Be sure there is no water on slabs.

Referring to Inquiry No. 717, would say that marshmallow is manufactured chiefly of sugar, glucose, water and gelatin. Marshmallow is classified under practically three headings—cut marshmallow, molded marshmallow and marshmallow toppings.

### Chocolate Icing

(726) We have had in the past two years a great deal of trouble with our summer chocolates. Our formula for this chocolate was the same used in an ordinary chocolate drop. The chocolate icing which we used was made of powdered sugar, icing powder, and powdered cocoa. We had a great deal of trouble with fermentation of center, and when the centers were run the least bit soft, the icing, no matter how thickly it was put on would not hold them.

Do you know of a hardener which can be used with the regular chocolate coating so as to increase its melting point to around 110° to 115°. Thanking you in advance for this information and with very best wishes, we are

It is possible to raise the melting point of chocolate by substituting a higher melting point fat for the cocoa butter or by increasing the proportion of stearic acid in that butter. I have done this, but find the result unsatisfactory.

The temperature of the healthy human mouth is 98.4° F. If a fat of higher melting point is used in a confection it will either form a coating over the roof of the mouth or chew out and remain in the mouth when the rest of the ingredients dissolve.

If the melting point of coating were raised, as suggested, to 110° to 115° it would be unpalatable.

An article on icing appears elsewhere in this issue.

### Re-Glazing Jelly Beans or Pan Goods

(723) Could you supply a good recipe for polishing pan goods?

The way we finish now does not give us the result desired. We finish the jelly beans in the regular revolving pan after sufficient coat has been applied, allow them to dry for four or five days, then glaze them in a pan coated with beeswax and talcum powder, melting the beeswax and coating the pan, then allow the goods to revolve in the coated pan until finished. This does not give us as good a shine as we would like.—W. R.

AFTER the grossing is finished and the goods surfaced they must be wet with sufficient syrup to take up all loose sugar and dust adhering to them. Run until the charge is dry and the goods leave no marks of sugar on the hand as it passes through them. If any loose sugar is carried into the polishing pan with the goods it will stick to the wax and prevent a proper and lasting polish.

Place the goods in trays which have ventilating space between them. Allow them to stand over night. If stored more than 24 hours the coating is likely to crack in minute lines resembling fire marks on glazed china. The polishing pan must have no ribs and where possible

should be provided with heating coils. It must be set up in a room entirely separate from that in which the grossing is done to protect it from flying sugar dust.

Clean the pan carefully and dry thoroughly. Set the pan in motion, pour in melted white beeswax and run until the wax is cold and the entire inner surface of the pan evenly coated. The room should be so cool that the wax will become hard.

Put a moderate charge of goods in the pan and run until they are glossy. Remove the goods to trays and let set over night. The following day the goods will be stuck slightly. Jar loose, replace in the pan and polish again. Pack as soon as dry. Where the law does not interfere the polishing may be greatly facilitated and improved by dusting the goods in the polishing pan with a very small quantity of powdered talc.

In very warm climates it is sometimes found advisable to line the pan with a mixture of beeswax and karnauba wax which melts at a higher temperature.

### Fudge

(720) I am taking the liberty to write you in regard to the making of fudge. Now, as we have been making it for some time, we find that we have trouble with the surface, as it shows white in spots and also the bottom is soft and inclined to cling to the paper.

We have been using the formula as follows: 136 sugar, 90 glucose, 6 gallons of evaporated milk, 7 oz. vanilla, 75 lbs. cream fondant. Cook to 244 degrees, cool in kettle to 90 degrees and pour.

If there is any information that you can give us in regard to same would be very thankful.

I should say this fudge is too rich in sugar and poor in milk.

Let them try 120 sugar, 100 corn syrup, 90 pounds of evaporated milk, 100 fondant (8-20, cooked 244).

The first three items should be cooked to about 244, then drawn into three hand kettles, and one-third of the fondant added to each after the first heat is out of the batch. Stir until just warm enough to spread readily, and then store in fairly warm, dry room. This should not spot.

If spread too cool the surface will have no gloss. If too warm it will spot, but no definite temperature can be set without intimate knowledge of factory conditions. Be sure paraffine on paper has higher melting point than temperature of batch.

The formula is all right; the fault lies in the manipulation. Fudge should be made in a room with a temperature of 100 degrees Fahrenheit. At this temperature the graining or crystallization is more nearly perfect than when the temperature varies. The temperature of the room is important, for upon it depends the fineness of the grain.

The cause of sticking to the paper is either that it is not properly oiled or the surface of the slab or board on which the batch is poured is cold. Ninety degrees is too low. Batch should not be below 120 degrees when poured. The white spots on the top surface are caused either by the fondant not being properly mixed with batch or else too much scraping with palette knife. It is important that the fondant used in fudge should have the proper grain or crystallization.

Eighty-five pounds sugar, 15 pounds corn syrup cooked to 242 degrees and grained at least lukewarm will give the fondant the right grain for fudge.



# The Making and Handling of Icing

The First of a Series of Short Articles and Open Discussions on the Practical Handling of Various Types of Confections by Practical Candy Men



ITH the approach of warm weather chocolate goes more or less into the discard.

Not only is it difficult to market chocolate and chocolate coated goods during the summer months but the consumer is subconsciously repelled by the high percentage of fat it contains. Chocolate is a decided heat producer which unlike ice cream does not veil its true character behind a momentary cold. The consumer demands a coated piece and that coating is needed as protection from a manufacturing angle as well. The logical solution is icing or fondant. The former is preferable as it is suited for use in any standard dipping machine.

In its simplest form icing is powdered sugar and water. This mixture is subjected to modifications planned to improve it or render it suitable for special purposes. As with chocolate coating it must be varied in weight and fluidity to accord with the method by which it is to be applied—very thick for the basket machine, thinner for fork dipping and very thin for the enrober.

It must be borne in mind that on a basket machine the goods can be shaken with a violence sufficient to dislodge them from a hand fork and that an enrober scarcely shakes them at all. The coating must be of a density to meet these conditions.

Once icing is applied it must be hardened; not by cold as is the case with chocolate but by drying out the water, and this drying requires warmth. The degree of heat is relative of course, as too much heat will break down any icing.

## **Icing Must Be Dry**

It is of the utmost importance that the icing be dry—thoroughly dry—before it is packed. The contained moisture is only weakly incorporated with the other ingredients and is very liable to separate and form a thin syrup easily fermented. If the goods are run from the coating machines to an ice box where they are chilled the gelatine and fat in the icing sets up and gives an appearance of dryness to the goods which is deceptive and dangerous and greatly retards the ultimate drying which they must have.

Very little of the gelatine on the market is entirely free of bacteria which cause it to liquefy when in contact with water. If the water is not dried out of the icing this bacteria will develop and destroy the gelatine. The water liberated in this way forms a light solu-

tion with the sugar and fermentation sets in.

It is equally important that the centers be so balanced that they will not give off any great quantity of water after they are dipped and packed.

This liberated moisture will dissolve the inner surface of the icing, no matter how thoroughly it may have been dried, and so creates the same condition as that described in the foregoing paragraph.

## **Formulas**

Many different formulae for icings are used but we believe the following two are the best, which have come to our attention, for general factory use. Either must be varied to suit specific factory conditions and variations in raw materials.

To be colored and flavored to suit. When an icing brown and vanillin are added a very fair chocolate is obtained:

### *Marshmallow*

50 lb. Glucose  
25 lb. Sugar  
2 to 3 lb. Gelatine.

### *Finished Icing*

30 lb. M. M. (as above)  
48 lb. 4x Sugar  
25 lb. Crystal Syrup  
2 lb. Powdered Starch.

The marshmallow batch should be beaten stiff and is sufficient for three batches of finished icing.

The sugar, crystal syrup and powdered starch should be beaten together until white, then the marshmallow added and the whole beaten to a thorough mixture.

This icing is planned for use in an enrober and should run freely. The density should be controlled by the quantity of crystal syrup used.

Gelatine is too variable a commodity to allow of a close specification.

### *Chocolate Icing for Enrober*

14 lb. Chocolate Liquor  
9 lb. Cocoanut Butter (hard)  
12 to 16 oz. Gelatine  
2 oz. Vanilla Extract.

Melt the liquor and fat together then add the sugar and dissolved gelatine (soaked thin dissolved in  $2\frac{1}{4}$  gal. of water).

Place in a mixer and run fast for 30 to 45 minutes. Cool and if desired add a little hot water. The exact quantity of water cannot be specified but should be just enough to bring the icing to proper consistency for work to be done.

Use as cool as practical as heat will destroy the gloss.

Once thoroughly dried this icing will keep better than the No. 1 formula. The high fat content resists the absorption of water.

The finest powdered sugar and most nearly sterile gelatine obtainable should be used and only enough icing for immediate use made up

at one time.

If it is considered desirable to keep the icing a little soft, some nulomoline may be added. This is the least likely to allow fermentation of any method we know which retains moisture in the coating.

Use care in selecting your ingredients and be sure the icing is *dry*, not chilled.

## Valuable Free Literature

*The following publications—booklets, house-organs, catalogues, etc., are free for the asking, and will be sent to any of our readers upon request of the publisher, or if you check the ones you are interested in they will be forwarded from our Buyers' Directory files.*

*The Candy Manufacturer Publishing Co., 30 North La Salle St., Chicago.*

**Vanillas.**—A treatise on the construction of concentrated vanilla flavors both pure and fortified. Foot & Jenks, Jackson, Mich.

**Nature's Finest Flavors.**—A discussion of the manufacture of terpeneless citrus natural fruit flavors, in concentrated form, from the harvesting of the fruit to the finished product.—Foot & Jenks, Jackson, Mich.

**Why Swift's Gelatins Will Suit You.**—An eight-page booklet dealing briefly with the manufacture, testing and distribution of Swift's gelatine.—Swift & Co., Union Stock Yards, Chicago.

**Valuable Information About Gelatine.**—A 24-page booklet which gives much space to a discussion of gelatine in an impartial way. There are chapters on the legal regulations, pointers on purchasing, testing food value, function and uses of gelatine.—Harold A. Sinclair, 160 Broadway, New York City.

**The Story of Delft.**—An artistic booklet illustrating the city and folk of Delft, Holland, also how and where Delft gelatine is made.—Harold A. Sinclair, 160 Broadway, New York City.

**Facts About Food Gelatine.**—A 16-page booklet on gelatine and its uses written by a disinterested scientist and originally published in The New York Tribune. An interesting informative treatise on the definition, manufacture and the diversified uses of gelatine.—Milligan & Higgins Gelatine Co., 222 Front St., New York City.

**The Helper.**—A 20-page booklet, illustrating in actual colors, the principal lines of confectionery in which Nu'omoline may be used advantageously. A short analysis of the characteristics of each kind of candy is given together with a suggestion for the solution of the principal problem in the manufacture of each class of goods illustrated.—The Nulomoline Co., 111 Wall St., New York City.

**Formulas for Wholesale Trade.**—A set of 36 formulas, each on a separate sheet, specially adapted to requirements of the wholesale manufacturing confectioner.—The Nu'omoline Co., 111 Wall St., New York City.

**Formulas for Retail Trade.**—A set of 65 formulas designed for the retail candy shop.—The Nulomoline Company, 111 Wall St., New York City.

**How Corn Syrup Is Made.**—A very interesting illustrated booklet showing how corn syrup is

made at the Clinton refinery.—Clinton Corn Syrup Ref. Co., Clinton, Iowa.

**The Candy Makers' Guide.**—A booklet describing Senneff-Herr's full line of candy makers' specialties and a set of formulas for using them. Senneff-Herr Co., Sterling, Ill.

**Refrigeration in the Candy Factory.**—A booklet containing a series of five articles on refrigeration and air conditioning and their direct application to the manufacture of confectionery. These articles were written by A. W. Lissauer specially for The Candy Manufacturer and published in our issues of June to October, 1922, inclusive.—W. L. Fleisher & Co., 31 Union Square, West, New York City.

**Candy News.**—An 8-page leaflet with articles of interest to the trade, issued monthly by National Equipment Co., Springfield, Mass.

**Ungerer's Bulletin.**—A 16-page semi-technical publication containing articles of interest to users of essential oils and flavors. Issued by Ungerer & Co., 124 West 19th St., New York City.

**"SX".**—A breezy little 16-page pocket edition, edited by Peabody and published monthly by Essex Gelatine Co., 40 North Market St., Boston, Mass.

**General Catalogue** and descriptive literature on candy and chocolate machinery.—National Equipment Co., Springfield, Mass.

**General Catalogue.**—Confectioners' machinery and tools.—Thomas Mills & Bro., 1301-8 North Eighth St., Philadelphia, Pa.

**General Catalogue.**—Candy machinery, tools and utensils.—Savage Bros Co., 2638 Gladys Ave., Chicago.

**Complete Candy Making Outfits** for small candy factories and candy kitchens.—Savage Bros. Co., 2638 Gladys Ave., Chicago.

**General Catalogue.**—Air conditioning apparatus. Also list of 77 other special Sturtevant catalogues covering in detail each item in entire line.—B. F. Sturtevant Co., Hyde Park, Boston, or W. L. Fleisher Co., 31 Union Square, West, New York City.

**General Catalogue.**—Ideal chocolate and cocoa products, illustrated in actual colors.—Ideal Cocoa & Chocolate Co., 39 Park Place, New York City.

**General Catalogue.**—Salesmen's sample cases, bags, portfolios.—Knickerbocker Case Co., 226 North Clinton St., Chicago.



# Laying Foundation for Consumer-Appreciation of Confectionery

*An interesting account of how many of our public schools are teaching the rising generation about confectioners' raw materials and also something about their relation to candy making.*

**By Frank Hilton Madison**

**N**OT long ago I told in **THE CANDY MANUFACTURER** how materials used in other industries were sent through certain public schools and suggested the possibility that candy manufacturers might help the industry as a whole by educating children as to the purity of the materials used by the bigger concerns. I have learned more along that line. The timeliness of the added suggestions is increased by the wind-up of a dispatch sent out from Washington, based on an interview about sugar with Dr. Harvey W. Wiley, food expert. He closed with: "Taking candy away from the baby is not looked upon by Dr. Wiley as a mean trick, but as an act requiring the highest moral stamina. My children never receive candy. The natural sugar obtainable in milk and fruits is sufficient for children. We give our children honey instead. We probably use about one-third of the sugar consumed by the average family."

## **Public Libraries Want Pictures of Raw Materials**

Pictures of the ingredients of candy are in demand for the circulating departments of public libraries. They are loaned to the children from the public schools who use them in connection with their studies. Talking with three librarians of branch libraries in Chicago I found that this plan of loaning pictures relating to industries was common among public libraries throughout the United States. "We simply cannot get enough pictures of sugar—and cocoa and chocolate," said one of them. "We supply pictures to fifteen large schools from this branch."

Upon inquiry I found that the total enrollment of pupils in these fifteen schools was somewhere between twelve and fifteen thousand. Many of the schools have their own extensive picture collections. In addition to these schools, the young women who are studying at the country's largest normal school, to become public school teachers, come to this particular library for sets of pictures.

"Now here is the kind of pictures about chocolate and cocoa that we are anxious to get. These are fine," remarked the librarian, in charge of the picture work. They were easily recognized as sepia pictures from the handsome booklet put out by a Milwaukee manufacturer of cocoa and chocolate. They showed the different steps of gathering the raw materials and the manufacturing processes. "The children study every detail," she said. This led to a discussion of the question as to whether the manufacturer could gain any publicity. It is not likely that a name would be obliterated from a picture although of course the public libraries cannot go to any great length in out-and-out advertising. This discussion brought out a possible plan.

## **A Concrete Suggestion**

Suppose that a candy manufacturer has some good educational photographs, showing the source of materials and processes. They may be in advertising matter as in the case of the Milwaukee manufacturer, or from a trade paper. He could work through the local dealer. Let the dealer find out from the public library if such pictures were desired. Then let the dealer present one set to the library. A duplicate set could be shown in the window, with a card explaining that the public library had found such pictures useful. It could be made the basis of an advertisement. Besides, it was pointed out, most libraries run columns in the neighborhood papers and generally mention the acquisition of useful collections. Even the outlying neighborhoods in Chicago have such papers which give space to the branch libraries.

If any other intimations were needed that the healthfulness of candy deserved more attention I got them fifteen minutes later when I opened the door into my own home. My twelve-year-old daughter was seated in the center of the floor and about her were strewn scores of pages which she was ripping from a stack of copies of a well-known weekly magazine.

"What are you tearing out?" I de-

manded. "I haven't finished with those magazines and want to study some of the ads." "Food advertisements for the cooking class at school," was the laconic reply. Further inquiry revealed that posters were to be made showing the different values of foods—here a chart of foods that are fats, and so on—a study of health values. "You want to be sure and include candy," spoke her fourteen-year-old sister savagely.

The rest of the family laughed, knowing what was behind this bitterness. The elder sister is undergoing the ordeal of earning her "honors" as a Campfire Girl and a part of the nationally-prescribed program is that she refrain from eating candy, except within ten minutes after meals, for a certain number of weeks.

## **Miniature City Includes a Candy Factory**

Among the school activities of interest to candy men that I have come in contact with is the plan tried by Dr. Margaret E. Wells in the elementary school of the State Normal at Trenton, N. J. There seven-year-old boys and girls ran a candy and soda fountain department in their Model Department Store and the eight-year-olds played at operating a candy factory in their model city. These activities, indicating a deep interest in the candy business, were not stunts for a day. They were part of a novel all-the-year-round educational program in which they learned reading, writing and arithmetic through studying about candy.

In brief this school got away from the customary "memorize-what's-in-your-books-and-recite-it" plan. Their first year at school the children were divided into groups of five or six, each making a doll and the group of dolls constituting a family. With these dolls the first-year children play at "family life" the whole school year. They had to have homes, clothing and all sorts of supplies. In solving these problems the children just naturally picked up reading, writing, figuring, drawing, manual arts, and all the common branches in a practical manner;

they had a real motive to learn.

When the children of the first three grades got together and discussed what they should do for the school year—they plan and carry out their own projects in such work—they found that the needs of the family called for stores and factories. So all year the second grade operated The Model Department Store, with seventeen departments, and the third grade built and operated a remarkable miniature city.

They did things just like the grown-ups do, studying the activities of the adult families, storekeepers and factories for ideas they could imitate. The interesting things they did make a volume. In fact when Doctor Wells described the work in her thesis for a degree at Columbia University, it was such a human-interest story that she was urged to publish it. She did as "A Project Curriculum" (J. B. Lippincott Co.), and as she informed the writer, "without the change of a single word."

Of course these youngsters could not stock their candy and soda department with real materials; pictures and miniatures had to suffice. Neither could the managers of the "candy factory" in the model city turn out candy all the year. Only when parents and visitors were coming did they busy themselves with easily-made confections.

But they did discuss ingredients of candy and compare them. They studied the sanitary and hygienic aspects of the candy industry as a part of their education in "social life and hygiene." The value of cleanliness was impressed upon them. They had for their "music" lessons songs they had made up themselves, such as "The Peppermint Dog and the Chocolate Cat." They learned "English composition" in making such songs as well as in composing rhymes like "The Bittersweet Girl and the Peanut Brittle Boy." All these things helped to make the customary text-book study practically unnecessary.

But best of all they learned "appreciation, standards." They learned to appreciate the processes behind the finished article. Is it not true that an earnest study of candy is likely to induce them to prefer candy they know has required time and money to make—rather than the cheaper article?

#### The Parker School Visits Bunte's

Another "project" in a Chicago school led the pupils to a candy factory before they were finished. This was described in the year-book of the Francis W. Parker school some time ago. In brief the fourth grade geography class started on an imaginary trip in search of cacao. Cacao was selected

because it represented the tropical countries and appealed to all the children.

They went through all the imaginary steps of a trip from Chicago to New York, by steamer to Jamaica and spent a day on a cacao plantation observing the planting, growth, gathering and preparing for shipment of the cacao beans. At this point a real trip was made to a park to see a real cacao tree. Then another real trip was made to a candy factory—Bunte's if I remember rightly—where they saw the full processes of making cocoa and chocolate. Here they were so impressed by the large number of cacao beans used by this factory that they wondered if Jamaica could supply the world with cacao and started off on other imaginary journeys to find other countries with similar climates.

#### Confectioners' Raw Materials Among Exhibits at Cicero Schools

Candy manufacturers might take a hasty glimpse at the schools of another city of 45,000. In the fourth grades of Cicero, Ill., the lessons—in all studies from reading to geography and so on—for an entire month, are built about some article of food. There are no cut-and-dried lessons; the children plan and carry out "projects." "Curiosity" is the first and most important of three planks in the "scheme of activity." Is it likely that candy materials will not be discussed when an entire month is devoted to "Sugar and sirup?" And another month to "Cocoa, tea and coffee?" Another to "Spices and extracts?" Another to "Fruits and nuts?" Or "The Dairy Industry?" Confectioners' raw materials are given much prominence in these exhibits. As an example, Principal Franklin Musgrave of the Woodrow Wilson School in Cicero told me of a case of cacao exhibits, supplied by a manufacturer, which he had found very useful.

Just how many schools are using new methods like these is hard to say. The most recent figures known are those compiled by the Institute for Public Service in 1917 when it received replies that showed "12,139 schools are studying the industries growing out of the fundamental needs of food, clothing and shelter." Of these 10,118 wrote that they had "found business enterprises of use."

But the biggest movement has been since that time. There is a reason. When, during the war, it was desired to get an idea like war savings, food saving, etc., to the homes quickly, the schools were used. Interesting lessons about these things were evolved by teachers. Consequently one of the committees of the National Society for

the Study of Education in 1920 reported:

"The rapid development of ideas and discoveries in the modern world brings to light many matters which should be introduced into the classrooms of public schools."

And why candy manufacturers might find many schools receptive to really educational material is explained in the resolution:

"\* \* \* it is highly important that there be set up in every school system some agency or agencies for the formulation of materials of instruction, not to be found in existing textbooks, such for example as exercises on local industries. \* \* \*"

#### Wrecked

He phoned his fiancée, on her birthday, that he was sending her a rose for every year. To the florist he gave the order for two dozen.

"He's a good customer," thought the florist, "and I'll send along an extra dozen."

That's how the engagement was wrecked.

#### Well Trained

"Hello, is this the — Club? Is my husband there? No, you say? But I haven't even told you my name."

"There ain't nobody's husband here never," said the darky.

#### The Female of the Species

A passerby saw a wildcat jump into the window of a mountaineer's cabin from which a woman's voice just previously emanated. Her husband sat serenely on the front porch smoking.

"Good Lord, man, save your wife," shouted the wayfarer.

"Yeah? Let the wildcat get out the best he can. Danged if I'm going to help him," said the husband.

#### Labor Income

The farmer was whitewashing his barn with a brush that had very few bristles.

"Why don't you get a good brush?" suggested a neighbor. "You could do twice as much work."

"Why should I," replied the farmer; "I ain't got twice as much work to do."

#### Her Hope

He: "I could dance like this forever."

She: "I am sure you don't mean it. You are simply bound to improve."

A man's philosophy is the formula of his personality.—George Eliot.

#### Candy

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# PETER'S New Coatings

We have perfected during 1922 and added to our line of chocolate Coatings and Liquors several splendid Vanilla coatings. Also two full cream Milks of the Peter type and three distinctive chocolate Liquors.

You will certainly be well repaid by an investigation of these new pieces which are as follows:

## VANILLA SWEET CHOCOLATE COATINGS

(Graded from No. 1, very low in price, to No. 8, the most superb Vanilla in America)

Samson (1)	Excelsis (5)
La Scala (2)	Marabello (6)
Cosmopolitan (3)	Super X (7)
Paramount (4)	Super XX (8)

## FULL CREAM MILK CHOCOLATE COATINGS

Delecta Orkney

## PLAIN CHOCOLATE LIQUORS

Reliance Caracas  
Black Beauty

SAMPLES AND PRICE UPON REQUEST



**Peter Cailer Kohler  
Swiss Chocolates Co.**

Incorporated

131 HUDSON STREET  
NEW YORK, N. Y.

Factories:

Fulion, New York, U. S. A.  
Orbe, Switzerland.  
Broc, Switzerland.

Pontalier, France.  
Hayes, England.  
London, England.



## IMPORTED NUT SITUATION

**A**T the end of the first quarter, we find the shelled nut market easy, with no large stocks on hand. During the interim since the first of the year the shelled nut market abroad has been weak and not indicative of any expression that would forecast developments pointing to a stronger market. But with April we find a bullish character has developed abroad, particularly with respect to walnuts, which, we believe, after all are the most important shelled nuts in the manufacture of candy.

### Walnuts

The large quantity of Arlequins which has been garnered this year has lessened the crop of No. 1 goods just to the extent that the Arlequins have been produced in an excessive quantity. There is no question then that the stock of real fine walnut meats is greatly limited in the French market. In topping and other visible work where artistry in the manufacture of candy must indicate the use of goods of fine color and appearance, the extra Bordeaux and Chaberte stocks will be found in relative small compass. Arlequin walnuts have undoubtedly cut a large figure in the walnut trade this year. An Arlequin walnut is associated always with premature kernels which have been affected by extremes of sunshine and subsequent seasons of rain. At a time when the blossom has developed to the early stages of the walnut formation the influence of the extremes of weather has caused the walnut kernel to become "sunstruck" and has taken on a tanned appearance, some sort of natural oxidation.

The exporter in gathering these kernels has had to contend with the mixture of extra quality goods and the Arlequin or second quality. It has been very difficult for the importer to get straight clean goods when he bought extra halves. There is nearly always found to be an admixture of Arlequins among the extra halves. Importers have worked diligently in order to impress the fact upon the exporter that extra halves must not be mixed with Arlequins, as the two grades should be handled and imported separately.

The Arlequin has many uses. It is a perfectly sweet nut. There is nothing derogatory to the character of the kernel, except the fact that it is brown colored. As French stocks now show a very noticeable decrease in the present crop of A-1 goods, the exporters have made a decided advance in their quotations. The Bordeaux extra walnut has advanced more than 50 points in the last three weeks. Some prominent shippers have, for the time being, retired from the market.

Taking the consensus of various cables and letters which have been received from different shippers abroad, the indication of a decided upward trend is apparent. Conservative forecasting points to higher prices for walnuts beginning in the early fall. In the meantime, the general market will remain steady and firm. If any early movement develops it will be of an upward tendency.

### Almonds

Jordan almonds of the small variety have not been popular this year. As a result, some holdings of big shippers abroad have been liquidated at short prices. This is an opportunity for the buyers of Jordans, meaning 2 and 3 crowns. They are, in some quarters, offered at prices around 45c. This year the Jordan crop ran to small fruits and a corresponding shortage of large fruits. It is generally noticeable that the following year, after a large crop of small nuts, that the reverse is frequently the case, and, this holding good in the present instance, would make the 2 and 3 crown



Jordans scarce next season. Therefore, small Jordan holdings, turned over at a price as above mentioned, would be a good purchase for the user of these goods.

Valencias, particularly 3 crown are a very staple almond with the large wholesale grocery trade of the country and also find their way to the candy manufacturer. These goods have been plentiful and sold on a very, very small margin to the importer. However, in the last week they have advanced into a stronger position and one large exporter is pretty well cleaned up on this size, so it is reasonable to believe that the 3 crown Valencias will work into a higher position. Four crown Valencias are very difficult to obtain and same is true of all large almonds this season.

Marconas running 19 to 21 are so scarce that it costs more to purchase them abroad than they are bringing in the present market here. They will be very difficult to obtain from now until the next crop. Barcelona filberts are also carrying the needs of the country, because of the fact that Levante is not coming into this market, there being a great shortage of the Black Sea filberts, so the result is that the Barcelona filberts are working into a higher position and will continue to advance. Filberts are good property and there is real shortage here at present, and a further shortage to be faced in the Spanish market.

There is nothing particularly new with reference to the other selections of shelled nuts. Sicilian pistache No. 1 is now quoted very high, but such movement has been regular with these fancy goods at this season of the year for some years preceding.

#### Pignolias

Pignolias, both Spanish and Italian, are held at reasonable prices. Black walnuts are fairly reasonable in price, but will advance probably 50 per cent by September, as the crop is always more or less limited. Brazils are in easy position, but back of this is a genuine shortage which will develop into high price meats as the season advances.

The shelled nut business is largely dependent upon the candy manufacturers. Its prosperity reflects the prosperity of the candy trade. The financial barometers show an improved condition in the general trade of the country and we believe that in line with this program that an improved condition throughout the shelled nut trade is already in evidence.

When Eve brought woe to all mankind  
Old Adam called her wo-man;  
But when she wooed with love so kind,  
He then pronounced her woo-man.  
But now, with folly and with pride,  
Their husbands' pockets trimming,  
The women are so full of whims  
That men pronounce them wim-men!

—Anonymous.

The mintage of wisdom is to know that rest is rust, and that real life is in love, laughter and work.—*Elbert Hubbard.*

I know what pleasure is, for I have done good work.—*Robert Louis Stevenson.*



## THE FOUNDATION MUST BE RIGHT



THE EFFORTS of a lifetime spent in perfecting a product may be lost in a few weeks by an indiscreet "saving" on raw material.

¶ One bad batch, widely distributed, may mean a setback of years, and even a slight lack of uniformity will militate against the success of any product.

¶ The raw materials are the foundation stones, and they must be right—otherwise uniformity is impossible.

¶ VANILLIN is the very corner-stone of your Extract or Confection. You, therefore, cannot afford to be indifferent about the quality of this important flavor.

¶ VANILLIN-Monsanto is right—always right—for the purity standard (higher than that required by the United States Pharmacopoeia) adopted by us years ago, is rigidly maintained.

¶ Build with pure white VANILLIN-Monsanto and your product will stand on a firm foundation.



**Monsanto Chemical Works**  
St. Louis, U.S.A.

Manufacturers of

VANILLIN-Monsanto (the pure white Vanillin)  
and  
COUMARIN-Monsanto (the original American Coumarin)

Stocks are carried in St. Louis, New York, Chicago, Minneapolis and San Francisco

### Food Packages Should Be Larger

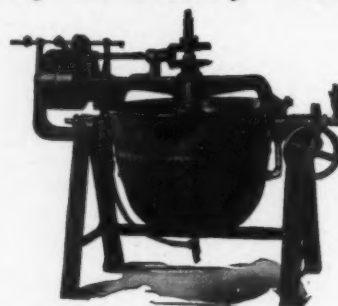
The buyers of American canned and bottled foods in India are complaining that shippers of these products pack them in boxes which are much smaller than is necessary for the safety of the shipment. Shipping in small cases increases the port and clearing charges unnecessarily, Consul F. L. Thomas, Bombay, informs the Department of Commerce. No matter what the size of the case may be, there is a standard customs charge for clearing. American packed food products enjoy a very good reputation in Bombay, states the Consul, and are generally considered to be among the best which can be had. They are packed in attractive containers and contrast favorably with those received from other countries, nevertheless, the old adage that "good goods come in small packages" is not exactly pleasing to the Indian paying the customs charges.—*Commerce Reports.*

The darkest day in any man's earthly career is that wherein he first fancies that there is some easier way of gaining a dollar than by squarely earning it. He has lost the clue to his way through this moral labyrinth and must henceforth wander as chance may dictate.—*Horace Greeley.*

## Bucyrus Copper Kettles

have given dependable service since 1874. Their design assures—

**Safety—Durability—Economy**



Steam Jacketed Tilting Kettle

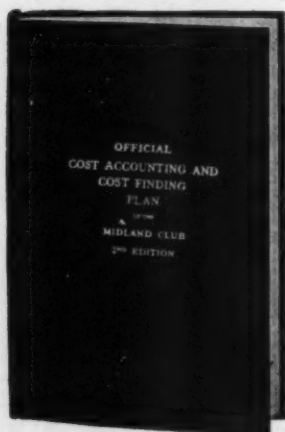
*Our Prices will interest you. Get them!*

**The Bucyrus Copper Kettle Works Co.**  
Bucyrus, Ohio

Also Manufacturers of  
**MIXING KETTLES, COPPER CANDY PANS**  
and **BUCYRUS REVOLVING PANS**—  
the last word in production machines.

## OFFICIAL Cost Accounting and Cost Finding Plan

Adopted by  
**The Midland Club**



**\$3.00**  
the copy

For Sale by  
**The Candy Manufacturer**  
30 North La Salle St., Chicago

Statement of the Ownership, Management, Circulation, Etc., Required by  
the Act of Congress of August 24, 1912,

OF THE CANDY MANUFACTURER, published monthly at Chicago, Ill.,  
for April, 1923.

State of Illinois, County of Cook, ss.  
Before me, a notary public in and for the state and county aforesaid,  
personally appeared Earl R. Allured, who, having been duly sworn according  
to law, deposes and says that he is the publisher of THE CANDY  
MANUFACTURER, and that the following is, to the best of his knowledge  
and belief, a true statement of the ownership, management (and if a  
daily paper, the circulation), etc., of the aforesaid publication for the  
date shown in the above caption, required by the Act of August 24, 1912,  
embodied in section 443, Postal Laws and Regulations, printed on the  
reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing  
editor, and business managers are:

Publisher—Earl R. Allured, 30 North La Salle street.

2. That the owners are: (Give names and addresses of individual  
owners, or, if a corporation, give its name and the names and addresses  
of stockholders owning or holding 1 per cent or more of the total amount  
of stock.)

The Candy Manufacturer Publishing Co.  
Earl R. Allured, 30 North La Salle street.  
Adolph Goeltz, Highland Park, Ill.

3. That the known bondholders, mortgagees, and other security holders  
owning or holding 1 per cent or more of total amount of bonds, mortgages,  
or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the  
owners, stockholders, and security holders, if any, contain not only the  
list of stockholders and security holders as they appear upon the books of  
the company but also, in cases where the stockholder or security holder  
appears upon the books of the company as trustee or in any other fiduciary  
relation, the name of the person or corporation from whom such trustee  
is acting, is given; also that the said two paragraphs contain statements  
embracing affiant's full knowledge and belief as to the circumstances and  
conditions under which stockholders and security holders who do not appear  
upon the books of the company as trustees, hold stock and securities in a  
capacity other than that of a bona fide owner; and this affiant has no  
reason to believe that any other person, association, or corporation has  
any interest direct or indirect in the said stock, bonds, or other securities  
than as so stated by him.

EARL R. ALLURED, Publisher.

Sworn to and subscribed before me this 27th day of March, 1923.

PRUDENCE M. WALKER.

(My commission expires December 4, 1923.)

It may be proved with much certainty that  
God intends no man to live in this world with-  
out working; but it seems no less evident that  
He intends every man to be happy in his work.  
It was written, "In the sweat of thy brow,"  
but it was never written, "In the breaking of  
thy heart."—*Ruskin.*

# Upressit

AIR TIGHT  
JELLY TUMBLERS



## 220,000,000 Upressit Openers

Every thumb is an opener for any Upressit sealed container.  
Women keep Upressit sealed containers for future use because it's as easy to RE-SEAL as to open Upressit.  
That's why Upressit SELLS candy for hundreds of manufacturers.  
Send today for sample container fitted with the popular Upressit cap and shipping band.

**Upressit Products Corporation**  
Long Island City, N. Y.

## "Trim It With Ribbons"

### WHITE & CAMPBELL'S Pure Dye Satin

Pattern 240 has stood the test and made good with every box or candy manufacturer who has used it.

Made in widths 2-3-5-7-9-12-16 and all the colors necessary to put the "final touch" to your package.

*Let us serve you at any time.*

**WHITE & CAMPBELL**  
387 4th Avenue  
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# NOW IS THE TIME TO ORDER HARD CANDY CANS



TO INSURE SHIPMENT IN  
JULY AND AUGUST.

PLAIN TIN, LACQUERED OR  
BEAUTIFULLY LITHO-  
GRAPHED.

QUOTATIONS CHEERFULLY  
GIVEN.

SPECIFY STYLE, CAPACITY  
and QUANTITY WANTED  
and SEND DESCRIPTION  
of DECORATION and  
COLORS DESIRED.



**NATIONAL  
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COMPANY**  
BOSTON 14,  
MASS.





CANDY BOX MATS, LACES,  
LAYER CARDS, DIVIDERS, ETC.

*American*  
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America's Standard  
Candy Cup

Once tried  
always used

AMERICAN LACE PAPER CO.

LARGEST PRODUCERS OF CANDY CUPS IN AMERICA

MILWAUKEE, WIS.

BRANCH OFFICES IN  
PRINCIPAL CITIES

## CREATE AN INTEREST!

Creating An Interest Creates a Desire.  
A Created Desire Creates a Demand.



Profitable Sales are assured when the Whirling Ad Lamp draws the public's interest to your merchandise.

The Whirling Ad Lamp is a new and novel idea in advertising. When the lamp is lighted the shade revolves, showing your advertisement on a background of illuminated colors. It rotates without the use of springs or any mechanism whatsoever.

People stop to watch it and wonder what makes it go 'round. It makes them guess, they speculate and talk. That's advertising.

The lamp stands 17 inches high and comes complete with metal stand, beautifully finished in colors with 6 ft. of extension cord and plug ready to attach. The shade is 8 inches in diameter, made of parchmentized, transparent waterproof material, decorated in brilliant blending colors and is metal bound, making it strong and durable.

Send for Descriptive Folder E.

**The Crystal Novelty Company**

Mfgs. and Originators

11 W. KINZIE ST.

CHICAGO, ILL.

## Knickerbocker "Made-Right" Sample Cases Bring Bigger, Better, More Orders

Displaying Samples Quickly, Attractively  
Convincingly, Fresh and Clean



No. 97

The Little-Big Business Bringer

Wood Trays, \$5.00

Aluminum Trays, \$6.50

F.O.B. Chicago. Catalog "M" Shows Full Line.

**KNICKERBOCKER CASE COMPANY**

228 N. Clinton Street, CHICAGO

# RIBBONS FOR CANDY BOXES

An attractive package is your  
strongest appeal to the buyer

## USE RIBBON--IT PAYS

*See our unique display of novelty ribbons  
at the convention*

### Johnson-Cowdin, Emmerich, Inc.

40 E. 30th Street, New York

MANUFACTURERS OF AMERICA'S BEST RIBBONS

*Same as last—*

—Almost every day we receive  
orders that specify *Same as last—*

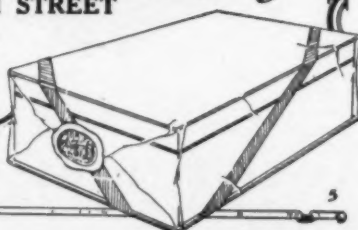
Care in making · courtesy in  
serving · satisfaction in using ·

*Same as last—*  
Many confectioners have said  
*same as last* for a number of  
years. — Many more are  
learning that saying it to us  
NOW saves most of their  
label and seal worries.

**MILWAUKEE LABEL & SEAL COMPANY**  
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**For True-to-Maple Flavor  
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Manufacturers of high grade candy use  
Mapleine because it brings out the **right**  
flavor in candy—flavor consumers like and  
repeat on.

Mapleine as a maple flavoring stands in a  
class alone. It is unsurpassed for quality and  
produces perfect flavor in all  
classes of work. You will  
find Mapleine particularly at-  
tractive in all nut combina-  
tions.

Mapleine is a vegetable  
flavoring — highly concen-  
trated, will not cook out and  
its flavor holds true in the  
finished goods.

**CONVINCE YOURSELF**

Send us a trial order. If Maple-  
ine does not give perfect satis-  
faction we will take it off your  
hands and mark your bill paid.

**CRESCENT MANUFACTURING CO.**  
8 W. Connecticut St. SEATTLE, WASH.



# Dunn's Celebrated Edible Gelatine

Specially produced and blended for the Candy  
and Ice Cream Industry.

We have grades for every class of work and  
will gladly send samples and  
prices on request.

Uniformity, Value and Purity Guaranteed.

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**THOMAS W. DUNN COMPANY**

546 Greenwich Street

Canadian Office and Warehouse:  
55 Cote Street, MONTREAL

**NEW YORK CITY**

## VANOLEUM

(Trade-Mark Registered)

The ORIGINATORS  
of  
CONCENTRATED VANILLA FLAVOR

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**STRENGTH, QUALITY AND PURITY**  
THE SAME AS ALWAYS

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Used for OVER TWENTY YEARS  
by leading Confectioners, Ice Cream  
Manufacturers, Bakers, Soda Dispensers  
and Caterers.

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**Corrizo Extract Co.**

211-215 West 20th Street  
NEW YORK CITY

## Marcone & Company, Inc.

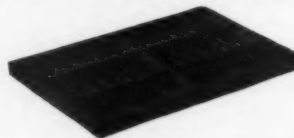
98 Front St., New York City

BROKERS IN

**Cocoa Beans  
and  
Cocoa Butter**

Phones: Bowling Green 2281, 2282, 2283

## Chocolate Molds



BARS, CAKES, FANCY PIECES  
Double Molds for Hollow Figures  
PANS—LARGE and SMALL

**EPPELSHEIMER & CO.**

34 Hubert Street

NEW YORK CITY



# Results

In every line of effort from agriculture to advertising, it is results that tell, and results—successful ones—depend on doing things right.

We know that this principle applies to the making of gelatines and we've followed the right road for many years.

And we've got results, too, and today our product stands for **purity, quality, uniformity.**

And the **price** is always right.

**Send for Samples.**

You'll see *why* we get results.

**MILLIGAN & HIGGINS GELATINE COMPANY**  
222-224 Front Street  
New York.

## Walter Baker & Co.'s Liquor Chocolates and Coatings

Are the Standards of the Trade for Confectioners' Use



*Sweetened and unsweetened; light, medium and dark, whatever the difference of color or flavor, all are absolutely pure, smooth and uniform to work.*

The taste and appearance of confections depend largely upon the coatings.

REG. U. S. PAT. OFF.

Send for Samples and Prices

**WALTER BAKER & CO. LTD.**  
Established 1780 DORCHESTER, MASS.  
*57 Highest Awards at the Expositions of Europe and America*

Standard of Quality



## CHOCOLATE

Coatings and Liquors

Order any of these well known brands:

Exquisite Vanilla	Imperator
Vanilla AA	Superior Vanilla
Black Eagle	Matchless
Melba	or Columbia Liquor

These brands are recognized by the leading Confectioners from Coast to Coast as the

*Samples and Quotations Upon Request*

**The Stollwerck Chocolate Co**

Factory: Stamford, Connecticut

NEW YORK CHICAGO LOS ANGELES

## Let us send you our sample of YOUR LEADING FLAVOR

For instance try our  
**BLACK WALNUT**

Highly concentrated.

Use 1 oz. to 200 lbs.  
Creams.

Does not  
cook out  
readily.



### Proven Popularity


The volume of re-orders  
on Black Walnut flavor con-  
vinces us of its popularity.

Freshen your assortment with something  
different. Your trade will like it.

Write for your sample today.

## ALEX. FRIES & BRO.

Makers of Good Candy Flavors for 67 Years  
CINCINNATI, OHIO

USE  BRAND

## AN EDIBLE GELATINE OF QUALITY



ESSEX GELATINE COMPANY

MANUFACTURERS

40 NO. MARKET STREET, BOSTON, MASS.

NEW YORK CHICAGO ST. LOUIS  
175 South Street 94 Board of Trade 400 So. Broadway

PHILADELPHIA SAN FRANCISCO  
708 South Delaware Ave. Second and Brannan Streets

## GETTING READY TO WARM UP! HAVE YOU ORDERED YOUR HARDENER FOR: CHOCOLATE COATINGS?

*Jobbers should take notice and  
insist upon Chocolate Protection  
BY*

# HAEHNLEN'S HARDENER

(A Vegetable Product. NOT A FAT)

**IN ALL CHOCOLATE COATINGS USED.**

Your chocolates will DRY QUICKER, increasing OUTPUT.

Your chocolates will LOOK BETTER, increasing SALES.

Your chocolates will KEEP BETTER, increasing SATISFACTION.

Your chocolates will retain their color when the weather is humid and warm.

Before being packed for shipment, Haehnlen's Hardener is always thoroughly "aged" and "seasoned" and tested, thus eliminating any possibility of porosity and other detrimental action on the coatings, such as is caused by the use of inferior and unfinished products and raw materials.

FURTHER INFORMATION AND QUOTATIONS ON REQUEST.

Manufactured by  
**L. S. HAEHNLEN**

3817 Wyoming St. St. Louis, Mo.



Sole Distributors for U. S., Canada  
and Europe:

**HAUG & CO., Inc.,**

295 Broadway

New York City

# LACTART

## *in Candy*

LACTART in candy brings out the full taste of flavors used without altering them in the slightest. It is non-astringent and non-volatile so that none of it is lost in cooking. It is the ideal preventative of fermentation and keeps the sugar soft on coated candies.

LACTART, the highly refined, pure, edible Lactic Acid is made only by the Wamesit Chemical Company. Its strength and quality are standard and guaranteed. It is the result of years of experience and contains none of the insoluble matter found in harsher acids.

LACTART is in liquid form for your convenience. It is sold in one gallon jugs, five and ten gallon kegs, or fifty gallon barrels.

*Write for free sample to be sent you for testing.*

## WAMESIT CHEMICAL CO.

32 Shattuck St.

Lowell, Mass.

## Conley Foil *Foils* Spoilage and Waste

The cash returns will be greater for your dealers, your jobbers and yourself, when—

*bright, clean Conley Foil wrappers enclose your various bars, keeping them fresh, and thus cutting down waste through spoilage and staleness, particularly during the coming warm weather.*

We'll be glad to design a wrapper for you that will insure fewer returned goods, and greater returns in more sales, through its attractiveness and pulling power. No obligation.

Will you send us your suggestions today, and let us show you what we can do?



**The Conley Foil Company**  
541 West 25<sup>th</sup> Street ~ New York City



# They Say This Cannot Be Done!

**T**HE Foote & Jenks exhibit at the National Confectionery Exposition in Atlantic City next month will be devoted almost exclusively to a demonstration of the use of finest concentrated flavors in lemon drops and banquet jellies.

One of the most popular fallacies of the confectionery business is that concentrates cannot successfully be em-

ployed in these products of the candy manufacturer's art. Our demonstration will prove that decidedly **finer** candies of these types are produced with CXC Lemon, CXC Orange and CXC Cherrystone than with any other flavoring products.

To every manufacturer who is interested in the very highest possible quality in his output, this unique demonstration will prove a revelation.

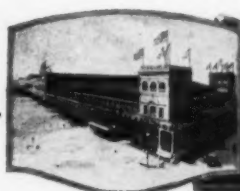
## FOOTE & JENKS

Expert Flavor Specialists  
JACKSON, MICHIGAN

**Put  
This  
Down  
In Your  
Notebook  
NOW!**

"See the Foote & Jenks exhibit and demonstration at the Atlantic City Convention—

**Booth  
147**



Meet us at the Third  
**NATIONAL CONFECTIONERY**  
And Associated Industries  
**EXPOSITION**

On the Million Dollar Pier—Atlantic City, May 21-26, 1923



## Candy Manufacturers— DO YOU KNOW—

1. That the milk or cream you use is mostly water?  
—And that a great part of your "cooking" expense is consumed in boiling this water away?
2. That cooking reduces flavor and yield?  
—So that you are actually spending money to reduce the quality of your product.
3. That you can't know the price you pay for milk?  
—Unless you add the cost of refrigeration, of waste, spoilage, extra sanitary expense and handling charges?
4. That all this expense is unnecessary?  
—As you can buy absolutely pure fresh milk or cream in powdered form and thus save all these extra costs—to say nothing of the worry you eliminate by being able to keep milk on hand at all times.
5. That this powdered milk or cream is as easy to buy as sugar?  
—It keeps for months without ice. You mix just as you need it—keep the balance in your store room.
6. That Merrell-Soule Company absolutely guarantees the uniform quality of each grade?  
—And can furnish any grade from a powdered skimmed milk, whole milk or cream up to 72% butter fat.
7. That this uniformity gives you a chance to guarantee your product?  
—Whether it be the highest quality or the cheap "commercial" product the uniform quality of the milk insures a uniform grade of candy.
8. That Merrell-Soule Company maintains a Technical Confectioners' Service Department?  
—To give assistance on all practical confectioners' problems—and will be glad to have you write in for help at any time.

A 54-page booklet—giving facts about powdered milk—"quality" and "price" candy recipes, tests for the candy manufacturer and data on Federal Standards—will be sent upon request. Write us for your copy today.

**MERRELL-SOULE COMPANY, Syracuse, N. Y.**

Confectioner's  
CORN SYRUP



Thin Boiling  
and Moulding  
Starches

OUR REPRESENTATIVES WILL ATTEND THE CONVENTION AND  
WILL BE GLAD TO VISIT WITH OUR MANY FRIENDS.

*HEADQUARTERS AT HOTEL TRAYMORE*

**American Maize-Products Co.**

41 E. 42d St., Liggett Bldg.  
NEW YORK

111 West Monroe Street  
CHICAGO



***UNEXCELLED for  
COOKING QUALITIES***

**CORN PRODUCTS REFINING COMPANY**

17 Battery Place

New York City

**New Federal Standards for Cocoa Products  
are in effect NOW**

Do your products comply with the changed specifications?

**An Analysis Will Tell**

**SCHWARZ LABORATORIES, INC.**

113 HUDSON STREET

NEW YORK, N. Y.

*Most reliable gelatine  
or Confectioners—*

**WHITTEN'S  
GELATINES**

are standard

— Established 1879 —

Strength, purity and uniformity guaranteed

Manufactured by

**J. O. WHITTEN CO.**

Winchester, Mass.

Woolworth Building  
New York City

20 East Jackson Blvd  
Chicago

**Highest Grade Shelled Nuts**

1885—IMPORTERS—1923

**SPENCER IMPORTING CO.**

25 Leonard Street, New York City



# GUM TRAGACANTH VANILLA BEANS GUM ARABIC

THURSTON & BRAIDICH  
27 CLIFF STREET  
NEW YORK

## DUCHÉ'S EDIBLE GELATINE

Manufactured Especially for Marshmallow Work.

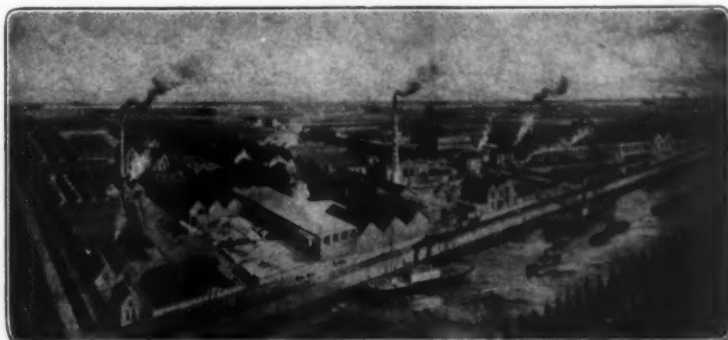
Its use insures a better product with maximum yield.

Purity, Strength and Uniformity Guaranteed

Established 1857

### IMPORTERS

SHELLED  
NUTS  
COCOA  
BUTTER  
EGG  
ALBUMEN  
GLACÉ  
FRUITS  
MILK  
POWDER  
MAPLE  
SUGAR



Plant in Belgium where PURE FOOD GELATINE is manufactured

### IMPORTERS

PEELS  
CHERRIES  
GUM  
ARABIC  
CEYLON  
COCOANUT  
CANNED  
FRUITS  
JAPANESE  
GELATINE

## T. M. Duché and Sons

LONDON  
BUENOS AYRES  
GLASGOW  
MANCHESTER  
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LOS ANGELES  
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376-378 Greenwich Street  
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Factories:  
VILVORDE  
POINT BRULÉ } BELGIUM  
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AVELLANEDA, BUENOS AYRES

## Von Dannenberg & Company BROKERS

Cocoa Beans    Cocoa Butter

82-92 Beaver Street

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New York City

TELEPHONES:  
BOWLING GREEN 1750-1-2

**EMIL PICK**  
COCOA BROKER  
**67 WALL STREET**  
NEW YORK

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YOUTH COMES BUT ONCE IN A LIFETIME. THEREFORE, LET  
US SO ENJOY IT AS TO BE STILL YOUNG  
WHEN WE ARE OLD

**COLD STORAGE**  
**IN THE NEW YORK DISTRICT**

WE are prepared to submit estimates on 35,000 cubic feet, or any part thereof, of perfect refrigeration at temperatures between 32° and 50°. We make a specialty of catering to the requirements of the confectionery trade — both manufacturers and suppliers, and can handle nuts, dates, figs and other similar products at the temperatures required.

**Stevenson Refrigerating & Storage Co., Inc.**  
521 Tenth Avenue, New York

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**BETTER AND BETTER EVERY DAY**  
and it will be  
**BIGGER AND BETTER IN EVERY WAY**  
**The National Confectionery Show**  
ATLANTIC CITY, N. J.  
**YOUNG'S MILLION DOLLAR PIER**  
**MAY**  
21 to 26, 1923

Not many of those who should be exhibitors are missing on the list below.

Those who are should get busy **AT ONCE**.

The choice of space location is diminishing. You had better get busy. Write, or wire.  
Don't leave it until the last minute.

**LIST OF EXHIBITORS AS OF MAY 1ST**

Acme Steel Goods Co.  
Aluminum Co. of America  
American Plastic Products Co.  
Aridor Company  
Associated Cooperage Industries  
Atlantic Gelatine Co.  
Ayer & McKinney  
Franklin Baker Co.  
Bendix Paper Co.  
Blumenthal Bros.  
Boyles Candy Publications  
Brooks Bank Note Co.  
B. H. Bunn Co.  
California Fruit Growers Exchange  
Candy Manufacturer Pub. Co.  
Clinton Corn Syrup Refining Co.  
Continental Paper & Bag Mills  
R. U. Delapenha & Co.  
J. P. Devine Co.  
T. M. Duche & Sons  
Thomas W. Dunn Co.  
Ferguson & Haas  
Foote & Jenks  
Franklin Sugar Refining Co.  
General Electric Co.  
The Gin-Wel Company  
J. W. Greer Co.  
Haug & Co.  
A. W. Hutton Mfg. Co.  
Improved Appliance Co.

International Co.  
International Printing Co.  
Jaburg Bros.  
Johnson-Cowdin-Emmerich, Inc.  
Kay-White Products, Inc.  
H. Kohnstamm & Co.  
Merrell-Soule Sales Corp.  
Thos. Mills & Bro.  
National Aniline & Chemical Co.  
National Art Co.  
National Bundle Tyer Co.  
National Equipment Co.  
National Seal Co.  
Northwestern Confectioner  
Nucoa Butter Co.  
Nulomoline Co.  
Henry H. Ottens Mfg. Co.  
Read Machinery Co.  
F. J. Schleicher Paper Box Co.  
Harold A. Sinclair  
Smith Scale Co.  
Stadler Photographing Co.  
Wm. J. Stange Co.  
Tin Decorating Co.  
Upressit Products Corp.  
Vacuum Candy Machinery Co.  
Van Houten, Inc.  
Voorhees Rubber Co.  
John Werner & Sons  
White-Stokes Co.  
H. O. Wilbur & Sons

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**EXPOSITIONS COMPANY OF AMERICA**

Suite M72 Congress Hotel, Chicago

Phone, Harrison 0205

Felix Mendelsohn, Pres.

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#### MACHINERY FOR SALE.

FOR SALE—ONE NEW REX CREAM center maker and one dozen Miltex trays, \$100. Sylvester Nichols Co., Little Falls, Minn.

FOR SALE — MACHINERY AND equipment of a modern Chocolate, Confectionery, Coffee Roasting Plant at bargain price before removal; little cash to a reputable purchaser. The CAN D OLA CO., 611 Callowhill St., Philadelphia.

FOR SALE—Small Werner cream beater; capacity 50 lbs. an hour; used six months; motor attached, \$250. Brown's Confectionery Co., 3916 Powelton Ave., Philadelphia, Pa.

FOR SALE—ONE SMITH FOOD CHOPPER in excellent condition. Price right. Heit Miller Lau Co., Fort Wayne, Ind.

ONE EMPIRE STARCH CLEANER NO. 1, practically new, \$200. The Edw. M. Becker Co., 659 Bolivar Road, Cleveland, Ohio.

FOR SALE—UP TO DATE AUTO candy truck, such as is used by candy wagon men in the larger cities. Inquire Racine Candy Shop, Racine, Wis.

FOR SALE — EMERY-THOMPSON Horizontal Brian freezer and Ice Crusher with everything that goes with them for the manufacture of Ice Cream. Inquire Racine Candy Shop, Racine, Wis.

FOR SALE—2 J. M. LEHMAN 10 POT cocoa presses; 3 Springfield 36" triple cocoa mills; 1—56" Carey chaser with 1 steel runner; 1 No. 98 J. M. Lehman pulverizer with 55" rotary granite bedstone; 2 Carey 24" triple cocoa mills; 2 Carey twin cocoa mills topstone 30" bottom 36" under runner; 1—16" x 40" Springfield upright chilled iron roll finisher; 7 tandems of 2 each 16" x 28" Springfield 3 granite roll finishers with clutch; 1 No. 12 B D Lehman four roll finisher with granite rolls 14" to 16" dia. x 28"; 1 No. 10-A Lehman melangeur with 38" dish shaped stationary granite pan and 1 rounded granite runner 20" dia. x 8½" face; 4 Bausman disc. 2 kettle type; 2 Day mixer Jacketed dumpers; 1 barrel; 2 Fowler Rockwell mixers jacketed, dumpers capacity 400 lbs.; 2 hand dipping tables with 6 pots; 5 Racine sizers rollers for nougat, caramel, cocoanut. Henry Reinhardt, 9713 107th St., Richmond Hill, Long Island, N. Y.

MACHINERY FOR SALE—ALL IN EXCELLENT condition—Four Werner & Pfleiderer Mixing Machines, size 16, Type VI-IX, Class BB, 150 gal. working capacity. Steam jacketed and heatable blades. Two new in original crates and two practically new. Four J. H. Day Imperial Mixers, No. 30, 110 gallon capacity. Steam jacketed power tilting with tight and loose pulley or direct connected to a 15-1 Reduction unit with Dodge clutch. One East Iron Mixer, size 10, Type SC, Class 6. Complete with

#### Machinery for Sale.—Cont.

motor, base, silent chain drive and 14-in. Dodge clutch, working capacity 200 gallons. Both mixing and masticating blades. New, never been used. One East Iron Mixer, size 9, Type SC, Class 6, 150 gallon working capacity. Capable of mixing and masticating very heavy material. In excellent condition. Six Westerman Kettles. Steam jacketed, tilting, 100 gallon capacity. Equipped for individual drive. In excellent condition. AMERICAN CHICLE COMPANY, L. I. City.

#### FOR SALE

3 Carey Cacao Butter Presses.  
3 Lehmann Cacao Butter Presses.  
1 Springfield 3-Roll Refiner.  
1 5-Roll Steel Refiner, 16x32.  
1 Lehmann Cocoa Pulverizer, 98.  
1 Lehmann Cracker-Fanner, large.  
1 Jabez-Burns Cocoa Bean Cleaner.  
1 Springfield Cocoa Bolter.  
1 Racine Depositor.  
1 Werner Depositor, New.  
2 Wood Moguls, complete, A-1.  
6 Mogul Depositor Pumps.  
1 Springfield Enrober, std. size.  
2 Kihlgren systems for stringing.  
2 Fritz Coating Machines, complete.  
1 Walter Basket Dipping Machine.  
2 Springfield Continuous Cookers.  
2 Simplex Gas Cookers, extra kettles.  
1 Simplex Steam Cooker, almost new.  
1 Baker Steam Sugar Cooker, cheap.  
1 Hohberger Cream Cooler and Beater.  
2 Werner Cream Coolers, new.  
1 Racine M. M. Beater, jacketed.  
2 Racine Continuous Cutters.  
1 Automatic Plastic Machine.  
1 Mills Cooling Table, 3 x 6.  
2 Stokes Mint Tablet Machines, D.  
1 Saxmayer Bundle Tyer.  
3 Gas Engines (will exchange).  
Mills Bon Bon Machines, Buttercup Cutters, Blowers, Enrober, Belts, Gas Furnaces.  
1 New Lehmann 5-Roll Steel Refiner.  
1 New Lehmann 8-Pot Press.

When in New York, do not fail to visit our warehouse. All machinery kept in stock is rebuilt. Our guarantee provides for the return of machines that are not satisfactory in every respect. Time payments. Candy & Chocolate Special Machine Company, Inc., 39 Cortland Street, New York City.

EQUIPMENT FOR SALE—1 RACINE Depositor, \$350.00; 1 Electric Revolving Packing Table, \$200.00; 1 Rotary Electric Scrubbing Machine, \$100.00; 1 Mills Sizing Machine, \$45.00; used sample Cases and one Sample Trunk; 1 Small Power Egg Beater, \$15.00; 1 Marshmallow Barrel Beater, \$30.00; 1 Lady Mint Kiss Cutter, \$15.00; 1 Humbug Kiss Cutter, \$15.00; 1 Hand Butter Cup Cutter, \$12.50; 1 Hand Waffle Cutter, \$10.00. Gurley Candy Company, Minneapolis.

FOR SALE—2 BAUSMANN DISC Combination Liquor mills, 2 Springfield Continuous Cookers complete. Candy and Chocolate Special Machine Co., Inc., 39 Cortland St., New York City.

#### Machinery for Sale.—Cont.

FOR SALE—ONE NEW NO. 2 SCHUTZ-O'Neill Co. Dustless Sugar Pulverizer with fine collector complete. Aunt Jemima Mills Company, St. Joseph, Mo.

FOR SALE—LATEST IMPROVED Racine Automatic Sucker Machine, almost new, with or without direct connected motors. Favorite Confections Corp., 348-350 Ellicott St., Buffalo, N. Y.

FOR SALE—TWO TWO HUNDRED and fifty gallon steam jacket copper kettles. Address C. S. Hixson Candy Company, 1301 Adams street, Pittsburgh, Pa.

FOR SALE—ONE SIMPLEX VACUUM Cooker complete with motors and blower, latest model; one Brach Cutter complete with conveyer, almost new; 25, 30 and 50 gallon Steam Kettles with mixers; one Savage (After Dinner) Mint Machine complete with conveyer; six Model "K" Kiss Machines, latest models, perfect condition; five Steel Water Coolers. Address O286, % The Candy Manufacturer.

FOR SALE—SPRINGFIELD STARCH Cleaner, in good working condition. Price right. F. O. B. Burlington, Iowa. Clinton-Copeland Company.

COMPLETE UP-TO-DATE OUTFIT. Milk Chocolate and Almond Bar machinery, motors included. Most of the equipment made by National Equipment Co., Springfield, Mass. Apply to O292, % The Candy Manufacturer.

FOR SALE—ENROBER, NAT'L Equip., 15 inch; Chocolate Melting Kettles, Nat'l Equip., 2000 lb.; Greer Chocolate Cooling System, Bar Cooling Machine with shaking table, Depositor and Nut attachment, Nat'l Equip.; Weishopf Bar Wrapping Machine, Jabez Burns Cocoa Bean Roaster, Bausman Disc Refiner, Shraft System Complete, Enrober Trays, Shraft Trays, Triple Mill, Carey Type; Racine Carmel Cutter, Steel Mogul, Nat'l Equip.; Kiss Wrapping Machine, Model K; Heilman Coco Bon Bon Machine, York Batch Roller with motor, Savage Marshmallow Beater, Day Cream and Dough Mixers, Steam Jacket Kettles; slightly used D. C. Crocker Wheeler Motors, 1/12 to 35 H. P. Full particulars and prices will be sent upon request. Address L275, % The Candy Manufacturer.

FOR SALE—ABOUT 8,000 POUNDS OF tissue interlined 3" x 3" embossed Aluminum Foil printed in blue block letters with name of Candy 14 different kinds. Send for samples and prices. Chocolate Products Company, Baltimore, Md.



RATES: 25c per line; \$1.00 minimum. Forms close on first of month.

#### MACHINERY WANTED.

WANTED—A THREE ROLLER REFINER; rolls sixteen inches in diameter, forty inches long. Give full details and quotations. Address P 295, care The Candy Manufacturer.

WANTED—SMALL KISS OR CHIP MACHINE in good condition. Sioux Candy Co., Sioux City, Iowa.

WANTED—IDEAL CARAMEL WRAPPING machine, Junior Model, Type "E." Address N282, % The Candy Manufacturer.

WANTED—NEW OR SECOND-HAND Starch Cleaner. Please give particulars in replying. Brownfield-Sifers Candy Company, Iola, Kansas.

WANTED—RACINE CHOCOLATE MIXING and melting kettle. 300 lbs. capacity. Must be in good condition and at substantial saving from price of new one. Address P 302, care The Candy Manufacturer.

#### MACHINERY FOR EXCHANGE.

WANTED TO SWAP—ONE KOPPERMAN, 38 inch, revolving pan copper, steam coils and brass ribs, complete brand new for power marshmallow beater. Must be in good condition. Give full particulars, first letter. The Candy Manufacturing Company, Box 617, Jacksonville, Florida.

#### HELP WANTED.

WE HAVE A POSITION FOR A FIRST class working foreman on high grade Gum and Marshmallow work, in a medium sized growing plant in a large city in the Central States. State age, nationality, experience, reference and salary expected in first letter. Address P 296, % The Candy Manufacturer.

WANTED—FIRST CLASS CHOCOLATE dipper to teach decorating on enrobers for high class retail. Five machines. Busy Bee Candy Co., St. Louis, Mo.

WANTED—ONE GOOD CREAM, GUM and Marshmallow man. A good position for the right man. Address P 299, % The Candy Manufacturer.

WANTED—PAN MAN; ONE EXPERIENCED in all kinds of Pan work and capable of taking charge of a small department. Apply, stating experience, reference and salary expected. Address P 297, % The Candy Manufacturer.

#### HELP WANTED.—Cont.

WANTED—FIRST CLASS ENROBER man; factory located in the west. Address P 301, The Candy Manufacturer.

WANTED—GOOD RELIABLE MAN FOR hard goods department. Address P303, % The Candy Manufacturer.

HELP WANTED—EXPERIENCED woman to take charge of chocolate coating and packing department in well equipped plant in the south, both machinery and hand coating; applicant must have ability to handle and break in help, maintain discipline and get results. Give references, salary expected and all other information in first letter. All correspondence confidential. Address Empire Candy Co., Macon, Ga.

#### SITUATION WANTED.

SITUATION WANTED—CANDY MAKER, practical and reliable, Al on Chocolate Creams, Hand Roll and Cast, Nougats, Caramels, Bonbons, Marshmallows, Fudges, Jellies, Taffies and Counter Goods, etc., for first class retail establishment; ten years' experience; best references. Address A. L. Hofmann, 908 Montrose Ave., Chicago.

SUPERINTENDENT—OPEN FOR A position; understands the manufacturing of candy, costs, production and can run the factory at a profit. Address P 298, The Candy Manufacturer.

POSITION WANTED—7 YEARS' EXPERIENCE, working foreman in an enrober chocolate coating department and also experience in basket chocolate coating machines. Would like a position in New York City. Address P 300, The Candy Manufacturer.

EXECUTIVE MANAGER, BEING PRACTICAL in the manufacture of Coatings, Eating Chocolate and Confectionery, is open for a connection with a reputable concern who can use such ability to mutual advantage. A clean cut, high grade business man who will guarantee results and profits if you have the finances and facilities to manufacture or will ask no recompense. Address Manager, 611 Callowhill St., Philadelphia.

SITUATION WANTED—A PRACTICAL up to date candy maker or satin finish, hard goods, bon bons, chocolates, crystallizing work and a full line of counter goods, Turkish paste, marshmallows, etc., wants position as working foreman in a first-class retail shop; 30 years' experience. Chas. Dattelzweig, 2112 Berwyn Ave., Chicago, Ill.

#### FOR SALE—MISCELLANEOUS.

FOR SALE—VERY DESIRABLE COCOA powder and cocoa butter factory with full modern equipment. Address inquiries G. Osborn, Paynter Ave. and Sherman St., Long Island City, N. Y.

CHOCOLATE AND CONFECTIONERY factory fully equipped for Coatings, Bars, Eating, Creams, etc. Established trade to jobbers, valuable formulas and real estate. Can be sold separate at a bargain price. Step in and run this business for little cash. The CANDOLA CO., 611 Callowhill St., Philadelphia.

FOR SALE—THE BEST LOCATED confectionery and ice cream store in a prosperous river town of 25,000 people; largest retail trade in town within 100 miles of St. Louis. Address O290, % The Candy Manufacturer.

#### FOR RENT.

FOR RENT—2 story building 48x60 (rear 65 ft. to paved alley, shed and vacant), 2134 North Clark St. Wonderfully located near Lincoln Park and the big hotels. Handsome built-in offices, heating plant, 4 sanitary toilets, new concrete main floor, excellent for sanitary candy factory and retail sales room. Owner: Phone, Randolph 1823, Chicago, Illinois, or address D 300, care The Candy Manufacturer.

#### SALESMAN WANTED.

WANTED—AN EXPERIENCED RETAIL candy salesman to cover Northern Illinois territory. None other but a man with experience and following in the specified territory for retail business need apply. Puritan Candy Co., Milwaukee, Wis.

#### MISCELLANEOUS.

AGENCY WANTED BY SEVEN RELIABLE, experienced salesmen, headquarters San Francisco, covering Pacific Western States periodically and intensively. Now selling French perfumes, fine pharmaceuticals and other high-grade goods. Only well-financed concerns need answer. State full details of line to "Salesforce," Room 209, 507 Mission street, San Francisco.





# JUST OUT

## The first issue of our quarterly pocket supplement "The CANDY FOREMAN"

Distributed free to candy factory department heads, candy makers, and practical men directly interested in the manufacture of confectionery.

*Have you received your copy?*

The Candy Manufacturer Publishing Company, 30 North La Salle Street, Chicago

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1923





## CLINTON QUALITY

**C**Linton Confectioners' Corn Syrup is made to meet the most diversified requirements for a corn syrup that will work equally well in all departments whether for cream work, gum work, chewing candies, or high cooked candies. It runs extremely constant in gravity, strength, and purity and can always be depended upon to give uniform and satisfactory results.

## CLINTON SERVICE

**C**Linton Service includes among other things the facilities of our chemical and bacteriological laboratories and the aid of our experts in solving the technical difficulties and operating problems which at times confront the candy manufacturer. We are always glad to make analytical tests and give any information or suggestion which is within our power.

*May we send you our Illustrated Booklet  
on "How Clinton Corn Syrup is Made"*

# Clinton Corn Syrup Refining Company

CLINTON, IOWA

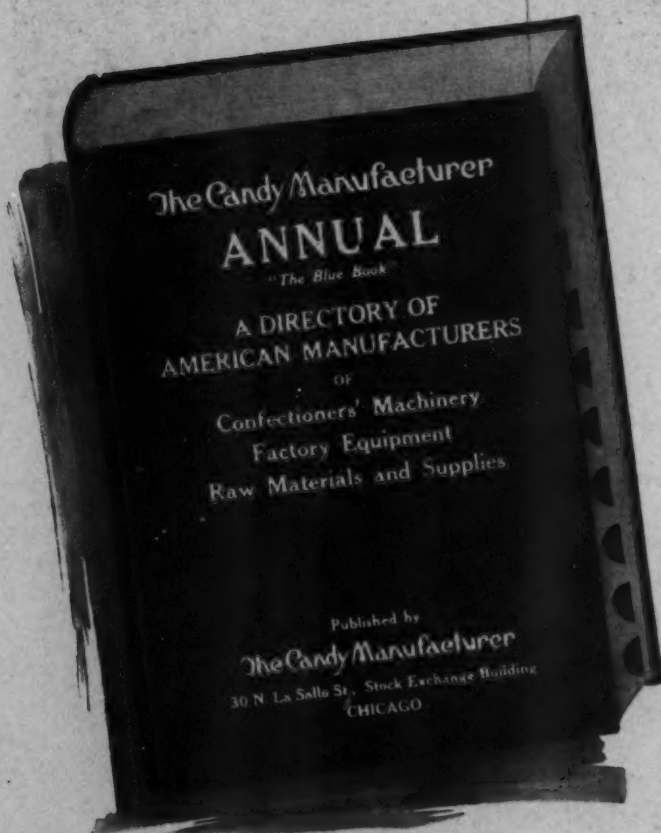


Meet us at the Third  
**NATIONAL CONFECTIONERY**  
And Associated Industries  
**EXPOSITION**  
On the Million Dollar Pier-Atlantic City, May 29-26 1925



# Where to Buy Confectioners' Supplies and Equipment

While this book is being compiled we would be glad to receive inquiries from our subscribers regarding sources of supply or any problem in purchasing. All information in our Buyer's Directory files is at your disposal.



## CONTENTS:

*In addition to the Directory feature The Blue Book will contain:*

An index of all associations, national, territorial, state and local within the confectionery industry, and the national associations in the allied industries.

Rulings, regulations and legislative situation affecting confectionery supplies and products. Statistical information on the industry. Reports and surveys of special value to the purchasing and sales departments.

A review of books, periodicals and technical literature on candy factory management, methods and materials and the industry in general.

A directory of trade names.

The data for this candy manufacturers' buying guide is being compiled and the book will be issued early in 1924. In the meantime our subscribers have access to all information in our directory files. We will be glad to receive your inquiries regarding sources of supply.

## The Directory Section

of the Blue Book will contain the following classifications:

- Directory of manufacturers of chocolate and candy machinery, refrigerating machinery, factory equipment, tools and utensils.
- Directory of manufacturers and importers of confectioner's colors, flavors, essential oils, gums, extracts and essences, gelatines, starch, corn syrup, molasses, honey, milk products and all raw materials.
- Directory of manufacturers of chocolate coatings, liquors, and cocoa butter; cocoanut oils, butters and cocoa butter substitutes.
- Directory of brokers and importers in cocoa beans, cocoanut, fruits, nuts, etc.
- Directory of sugar brokers and refiners.
- Directory of peanut brokers and growers and manufacturers of peanut machinery.
- Directory of manufacturers of paper boxes, fancy, set-up and folding; candy containers—tin, glass, redwood, baskets, leather, etc.
- Directory of manufacturers of paper box liners, laces, bonbon cups, seals, trimmings, etc., box papers and box tops.
- Directory of manufacturers of box wraps, bar wraps, foils, waxed papers, dipping papers, bags and paper specialties.
- Directory of manufacturers of shipping containers: corrugated, solid fibre and wood boxes, and pails.
- Directory of lithographers and manufacturers of "Dealer Helps" and advertising specialties, window trims, store signs, display cards, hangers, premiums, souvenirs, etc., etc.

**The Candy Manufacturer  
Publishing Co.**

30 N. La Salle St., Stock Exchange Bldg.  
CHICAGO



The Bacteriological Laboratory of the Crystal Gelatine Co. at Peabody, Massachusetts

## Avoid Summer Marshmallow Troubles

*Exploding and Fermenting Marshmallows can be prevented  
by using Crystal Gelatine made especially  
for Marshmallow manufacture.*

Liquefying Bacteria more than any one other one factor is responsible for burst and fermented marshmallows, according to many authorities within the candy industry.

A certificate of analysis showing that Crystal

Marshmallow Gelatine is practically sterile—as pure as pure air itself—will be sent on request with each shipment. Our chemists in our own laboratory keep a vigil which results in a quality gelatine which is as pure and uniform as human minds and hands have yet produced.

*May we submit samples with suggestions  
on your Marshmallow problems?*

### CRYSTAL GELATINE CO.

121 Beverly St., Boston, Mass.

#### Branch Stores

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**St. Louis**  
408 Elm Street

**Philadelphia**  
418 Arch Street

**San Francisco**  
Fairfax Avenue and Rankin Street

**Chicago**  
3630 Iron Street





## *- to the Journey's End*

By rail or boat, by truck or wagon, through rain and storm, your goods travel a long, hard way from your factory to the retail store.

No matter how often good wood boxes are loaded and unloaded, handled with hooks, piled under heavy freight, dropped from car to platform and from truck to the ground, they guard your goods from damage.

**Good  
Packing  
Pays**

Good wood boxes can always be opened for inspection or repacking by jobber or wholesaler. It takes only hammer and nails to make them ready for duty again. They carry your product safely to the journey's end.

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